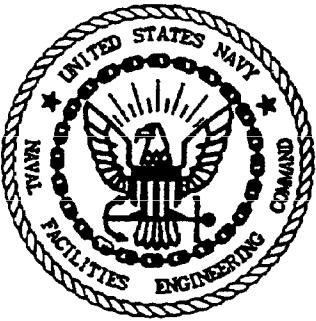


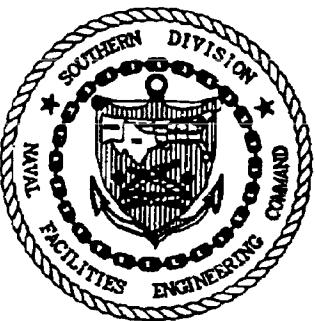
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COMPLETION REPORT FOR INTERIM/STABILIZATION MEASURE FOR SOLID WASTE
MANAGEMENT UNIT 21 AND 54 (SWMU21) (SWMU54) CNC CHARLESTON SC
2/11/1997
CNC CHARLESTON



COMPLETION REPORT

INTERIM/STABILIZATION MEASURE FOR
SWMU 21 & SWMU 54
NAVAL BASE CHARLESTON
CHARLESTON SC



Prepared for:

**DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON SC**



Prepared by:

**Supervisor of Shipbuilding, Conversion and Repair,
USN, (SUPSHIP) Portsmouth Va.,
Environmental Detachment Charleston, S.C.
1899 North Hobson Ave.
North Charleston, SC 29405-2106**

11 February, 1997



DEPARTMENT OF THE NAVY

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
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5090
Code 1876
7 Feb 1997

Mr. G. Randall Thompson, Director
Division of Hazardous and Infectious Waste Management
Bureau of Solid And Hazardous Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia SC 29201

Re: INTERIM MEASURE REPORT FOR SOLID WASTE MANAGEMENT UNIT 54

Dear Mr. Thompson:

The enclosed interim measure report is submitted to fulfill the requirement of Permit Condition 1V.D.6 for Permit Number SCO 170 022 560.

If the Department should have any questions, please contact me at (803) 820-7481.

Sincerely,

BRIAN K. STOCKMASTER
Remedial Project Manager
Environmental Division

Encl:

(1) SWMU 54 Report

Copy to:

SCDHEC (Mr. Tapia, Mr. Bergstrand)

USEPA (Mr. Bassett)

CSO Naval Base Charleston (LCDR Rose)



COMPLETION REPORT

INTERIM/STABILIZATION MEASURE FOR
SWMU 21 & SWMU 54
NAVAL BASE CHARLESTON
CHARLESTON SC

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ACRONYMS, ABBREVIATIONS and SYMBOLS

AOC	Area of Concern
CIA	Controlled Industrial Area
CMS	Corrective Measures Study
DERP	Defense Environmental Restoration Program
DET	Environmental Detachment Charleston
DON	Department of the Navy
DRMO	Defense Reutilization and Marketing Office
EOX	Extractable Organic Halides
IM	Interim Measure
IR	Installation Restoration
mg/kg	milligrams per kilogram (equal to parts per million)
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
ROC	Run of Crusher (crushed aggregate)
SARA	Superfund Amendments and Reauthorization Act
SCDHEC	South Carolina Department of Health and Environmental Control
SOUTHDIV	Southern Division Naval Facilities Engineering Command
SUPSHIP	Supervisor of Shipbuilding, Conversion and Repair, USN
SWMU	Solid Waste Management Unit
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Petroleum Hydrocarbons
TSDF	Treatment, Storage and Disposal Facility
USN	United States Navy
µg/kg	micrograms per kilogram (equal to parts per billion)

1. INTRODUCTION

1.1 INSTALLATION RESTORATION PROGRAM. The purpose of the Department of the Navy (DON) Installation Restoration (IR) Program is to identify, assess, characterize and clean up or control contamination from past hazardous waste disposal operations and hazardous material spills at Navy and Marine Corps activities. The Defense Environmental Restoration Program (DERP) is codified in the Superfund Amendments and Reauthorization Act (SARA) Section 211 (10 USC 2701). The IR Program is a component of DERP.

1.1.1 Naval Base Charleston IR Program. At Naval Base Charleston, a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) was prepared which divided the Naval Base into zones and identified Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) within each zone. The RFA evaluated each SWMU and AOC and determined which sites required further investigation. Based on the RFA, a RCRA Facility Investigation (RFI) work plan has been or is being prepared for each zone containing SWMUs and AOCs requiring further investigation. On completion of the RFI for each Zone, a RFI report will be prepared for that zone. The RFI reports will identify SWMUs and AOCs containing wastes requiring remediation. Eventually, Corrective Measures Studies (CMSs) will be prepared to determine the best means of remediating each site.

1.2 INTERIM MEASURES. Interim Measures (IM) performed as part of the IR Program are intended to eliminate sources of environmental contamination or limit the spread of environmental contaminants prior to the completion of the RFI CMSs.

1.3 SOLID WASTE MANAGEMENT UNITS 21 & 54. SWMU 54 is the site of a former abrasive blasting area, which is located in Zone "E" of the RFI at the north end of the Controlled Industrial Area (CIA) adjacent to the Cooper River. The area surrounds SWMU 21 (Slab 1275), an uncovered concrete pad which was used for temporary storage of containerized paint wastes awaiting offsite transport. Figure A-1 of Appendix A illustrates these two sites. Abrasive blast media, which

accumulated at the site during years of open blasting a large variety of naval ship components, is suspected to be the source of elevated contaminant concentrations discovered at the site. The dark shaded areas of photos D-1 and D-2 of Appendix D reflect the presence of spent abrasive blast residue prior to the IM.

1.4 SWMU 21 & 54 INTERIM MEASURE. During the interval between the RFI and the completion of the CMS, it was decided by Southern Division Naval Facilities Engineering Command (SOUTHDIV) that an IM would be performed by Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP), United States Navy (USN), Portsmouth Va. Environmental Detachment Charleston (DET). The objective of this IM was to remove the visible spent abrasive blast residue to eliminate it as a source of contamination at the site. Groundwater remediation was not an objective of this IM. In addition, no remedial action was intended for the concrete pad (slab 1275) since it was not considered a source for hazardous constituents based on results of samples taken in 1988 by Ensafe/Allen & Hoshall following cleaning and decontamination of the slab. This IM was consistent with the ultimate cleanup of the site and was not intended to circumvent the public participation process inherent within environmental cleanup under RCRA authority.

2. INTERIM MEASURE EXECUTION

2.1 ACTIONS REQUIRED BY INTERIM MEASURE WORKPLAN. Removal was performed to the maximum extent practical and an estimated 1000 cubic yards of material containing the remaining spent abrasive blast residue was properly disposed. Required actions included excavation from the following areas:

- Removal of all obvious spent abrasive blast residue from all exposed surfaces of soil, asphalt or concrete including the area underneath the slab for as far as can be reached;
- Removal of all obvious spent abrasive blast residue from the marsh mud area on the Cooper River side of the boundary fence. This required removal of the entire fence along the eastern boundary of the site and subsequent reconstruction of the fence;
- Removal of subsurface abrasive blast residue from all remaining soil areas of the site. Refer to Figure A-1 and corresponding Table A-1 of Appendix A for location, depth to residue and residue thickness data recorded for all areas of the site. This data, collected by Ensafe/Allen & Hoshall, was used to estimate the extent of excavation necessary for the majority of the total area of the site;
- Excavated areas were contoured at the site to blend into the surrounding area while maintaining, as near as possible, the original general shape and slope. Backfilling of excavated areas was not performed.

2.2 OBSERVATIONS NOTED

2.2.1 Compressed Air Piping Uncovered During Excavation

2.2.1.1 Observation. The depth of excavation along the south side of the concrete pad (slab 1275)

was much deeper than expected. According to depth and thickness data corresponding to sample locations 054-T10, 054-T14 and 054-T17, abrasive blast residue in this area was on the surface and approximately only 1 inch deep before interfacing with a layer of crushed aggregate (ROC). The data did not reflect the presence of approximately 3 1/2 feet of additional spent abrasive residue below the ROC layer.

2.2.1.2 Investigation. Excavation of this vein of essentially 100% spent abrasive blast residue resulted in a trench approximately 4 feet deep by 4 feet wide which ran the length of the western half of slab 1275. The center of the trench was parallel with and approximately 18 feet from the south side of the slab. Figure A-2 of Appendix A illustrates the size and location of this trench. A 4 inch compressed air pipe was found at the bottom of the trench. Evidently the pipe was installed some time after abrasive blasting operations began at the site and the trench was backfilled with surface material consisting primarily of spent abrasive residue.

2.2.1.3 Action Taken. The spent abrasive blast residue was removed from the trench to the maximum extent practical. The compressed air piping was left in place and the trench was filled and groomed over with existing, surrounding soil.

2.3 PLAN MODIFICATIONS AND JUSTIFICATION. There was no excavation of the marsh mud area on the Cooper River side of the east boundary fence as specified in Section 3 of the IM work plan. There were no samples showing abrasive blast residue depth and thickness data for this area. Therefore, the presence of spent abrasive blast residue in this area was assessed by the DET. The results of several isolated manual excavations in this area revealed little or no residue existed and since this area is submerged at high tide, it is reasonable to expect that any soluble constituents from abrasive blasting operations would have already leached out into the Cooper River. Consequently, it was determined that excavation in the marsh mud area would not be necessary.

3. INTERIM MEASURE OUTCOME

3.1 SITE CONDITIONS FOLLOWING COMPLETION OF WORK. Following completion of all site work on 3 September 1996, the site was clean of no visible spent abrasive blast residue remaining. Since a significant amount of the total excavated volume of material was taken from areas immediately adjacent to the long sides of slab 1275 where much of the loose spent abrasive blast residue had collected, more of the pilings which support slab 1275 were left exposed. Also, the overall general shape and slope of the site remained the same as it was prior to the start of the IM. Photos D-3 and D-4 of Appendix D reflect soil excavation immediately adjacent to slab 1275 as well as the absence of the dark shaded areas previously identified as areas with remaining spent abrasive blast residue. As a result of IM work at this site, four on site monitoring wells were abandoned. Monitoring wells NBCE-054-001, NBCE-054-003 and NBCE-021-002 were abandoned on 28 October, 1996 and monitoring well NBCE-021-001 was abandoned on 5 November, 1996.

4. SAMPLING

4.1 SAMPLING EVOLUTIONS AND RESULTS

4.1.1 Field Sampling. Field samples were taken during excavation from all areas of the site to verify removal of the spent abrasive blast residue. These samples were taken manually from the excavated surface, as required, for a simple visual analysis to determine the presence or absence of abrasive residue. Field samples were not submitted for laboratory analysis. Field sampling results were not recorded.

4.1.2 Confirmatory Sampling. Following removal of all spent abrasive blast residue, as determined by field sampling, confirmatory visual samples were taken. These samples were taken in the same manner as field samples and were visually analyzed for the presence or absence of spent abrasive. Confirmatory sample locations were grid-based using 25 foot centers with one sample taken from each grid block. Figure B-1 of Appendix B illustrates this sampling grid. There was no spent abrasive blast residue present in any of the confirmatory samples.

4.1.3 Waste Characterization Sampling. Samples were collected and analyzed for characterization and proper disposal of all excavated material. One composite sample was collected for each 40 cubic yard stockpile of excavated material and submitted for laboratory analysis. A copy of the analytical results of all waste characterization samples is included in Appendix B. Table B-1 of Appendix B summarizes these results. Figure B-2 of Appendix B illustrates the arrangement of all stockpiled soil excavated from the site with corresponding sampling information.

5. WASTE GENERATION

5.1 HAZARDOUS/POTENTIALLY HAZARDOUS WASTE. The hazardous waste identified below in paragraph 5.1.1 was turned in to the DET Hazardous Waste Facility at Building 1824 for disposal on 3 September 1996. The DET Hazardous Waste Facility is a less than 90 day storage facility as defined in South Carolina Department of Health and Environmental Control (SCDHEC) regulations R.61-79.265.

5.1.1 Hazardous Excavated Soil. Four shipments for a total of 37,254 pounds of lead contaminated soil was packed in drums and transported to the DET Hazardous Waste Facility on 3 September 1996. All of this soil was profiled as hazardous per Profile Number N00191-6A04. Tracer numbers 6247HH01, 6247HH02, 6247HH03 and 6247HH04 were assigned for each shipment respectively. This soil was turned over to the Defense Reutilization and Marketing Office (DRMO) and listed for disposal on Purchase Order No. SP440096D0020, Delivery Order No. 0008 dated 20 September 1996. This soil was transported offsite to Chem-Met Services, Wyandotte, Michigan, a permitted Treatment, Storage and Disposal Facility (TSDF) on 21 October 1996 on State Manifest Document No. 4056977 (see Appendix C, Item 1).

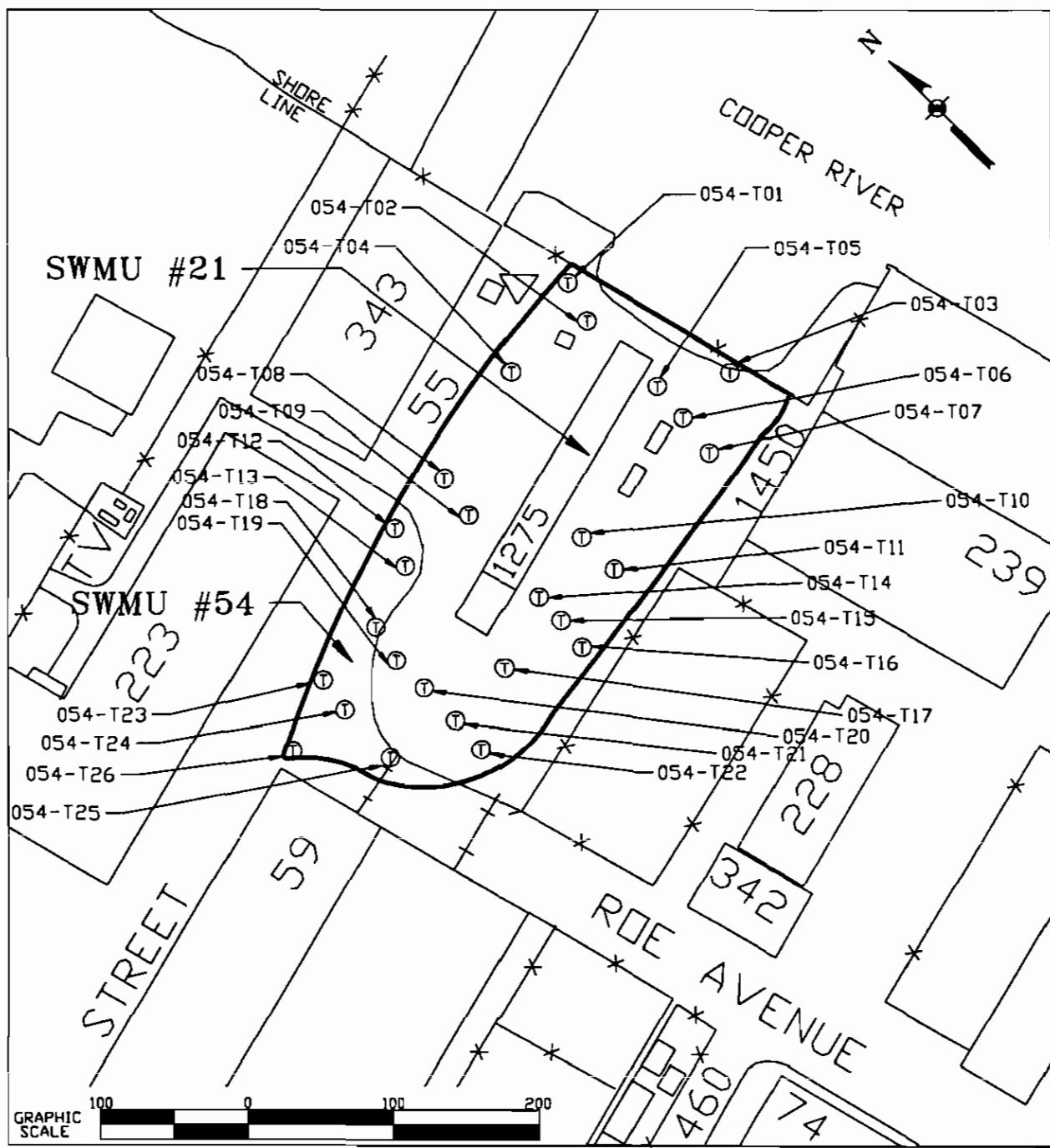
5.2 NON-HAZARDOUS WASTE

5.2.1 Non-Hazardous Excavated Soil. Between 22 August 1996 and 27 August 1996, a total of 1,443.76 tons of non-hazardous excavated soil containing spent abrasive blast residue was transported from SWMU 54 site to Oakridge (Chambers) Landfill located in Dorchester County, South Carolina under contract number N62467-96-M-4438. Copies of the Purchase Order, DD Form 1155, and a facsimile modifying the contract quantities are included in Appendix C as Item 2 and Item 3 respectively.

APPENDIX A

SITE MAPS

FIGURE A-1
SWMUs 21 AND 54 SITE MAP



① SAMPLE LOCATION FOR ABRASIVE BLAST RESIDUE DEPTH & THICKNESS

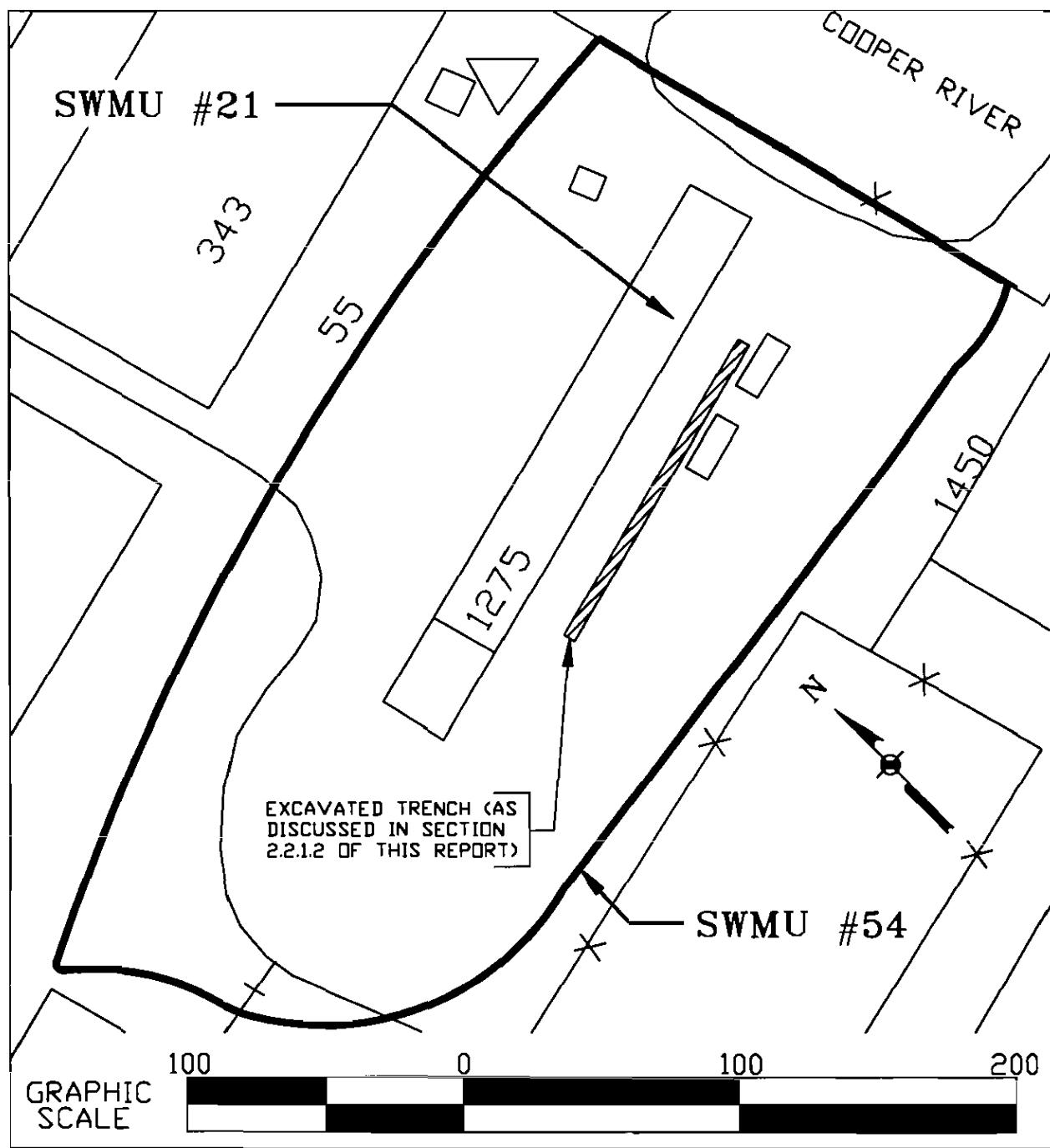
SWMU #54 ABRASIVE BLAST RESIDUE DEPTH & THICKNESS DATA (INCHES)

SAMPLE #	DEPTH TO RESIDUE	RESIDUE THICKNESS
054-T01	N/A	N/A
054-T02	2	10
054-T03	0 (at surface)	8
054-T04	4	6
054-T05	1	11
054-T06	5	6
054-T07	0	10
054-T08	0	1 (to ROC)
054-T09	0	9
054-T10	0	1 (to ROC)
054-T11	0	8 (to ROC)
054-T12	0	1 (to ROC)
054-T13	0	10
054-T14	0	1 (to ROC)
054-T15	0	1 (to ROC)
054-T16	0	1 (to ROC)
054-T17	0	1 (to ROC)
054-T18	asphalt surface	0 (asphalt surface)
054-T19	0	1 (to asphalt)
054-T20	0	1 (to asphalt)
054-T21	0	1 (to asphalt)
054-T22	0	1 (to asphalt)
054-T23	asphalt surface	0 (asphalt surface)
054-T24	asphalt surface	0 (asphalt surface)
054-T25	asphalt surface	0 (asphalt surface)

ROC = Run of Crusher

TABLE A-1

FIGURE A-2
SWMU 54 EXCAVATED TRENCH

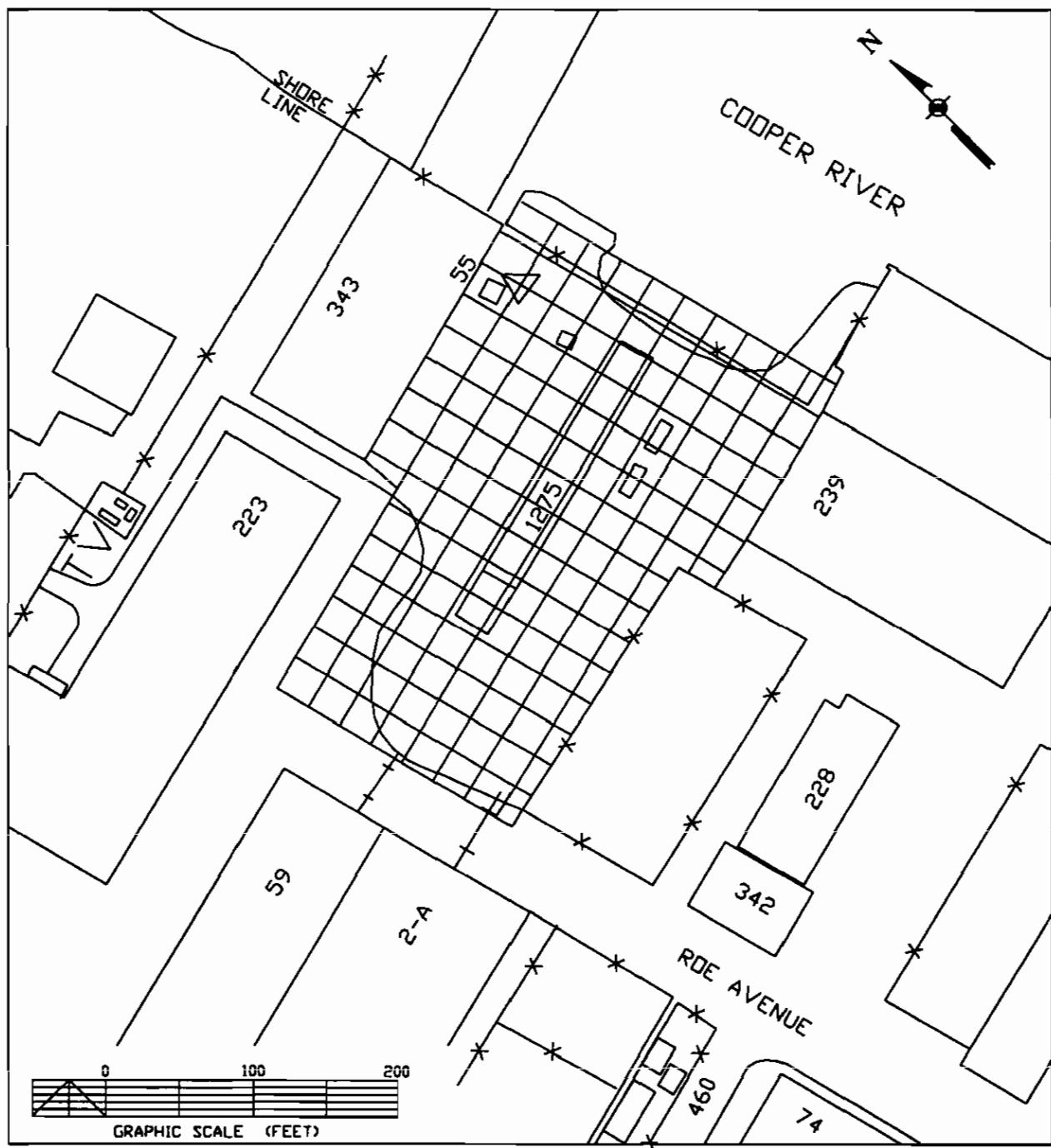


APPENDIX B

SAMPLING

DOCUMENTATION

FIGURE B-1
SWMU 54 CONFIRMATORY SAMPLING GRID MAP



SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY					
SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
1	MAY 7	1 AND 3	SPORT-0024-1 SPORT-0042-1 NBCE054S000100 TCLP (8 RCRA), ** TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX AND TPH	AUGUST 22 - 27	** TOTAL METALS, EOX AND TPH TESTS REQUESTED ON MAY 17 ON SPORT-0042. RESULTS WERE RECORDED UNDER SPORT-0042 BECAUSE SPORT-0024 WAS ALREADY CLOSED.
2	MAY 7	2	SPORT-0024-2 SPORT-0042-2 NBCE054S000200 TCLP (8 RCRA), ** TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX AND TPH	AUGUST 22 - 27	** TOTAL METALS, EOX AND TPH TESTS REQUESTED ON MAY 17 ON SPORT-0042. RESULTS WERE RECORDED UNDER SPORT-0042 BECAUSE SPORT-0024 WAS ALREADY CLOSED.

Table B-1 (18 Sheets)
B-2

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY					
SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
3	MAY 7	4 AND 5	SPORT-0024-3 SPORT-0042-3 NBCE054S000300 TCLP (8 RCRA), ** TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX AND TPH	AUGUST 22 - 27	** TOTAL METALS, EOX AND TPH TESTS REQUESTED ON MAY 17 ON SPORT-0042. RESULTS WERE RECORDED UNDER SPORT-0042 BECAUSE SPORT-0024 WAS ALREADY CLOSED.
4	MAY 10	6 AND 7	SPORT-0031-1 SPORT-0031-1R NBCE054S000400 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX AND TPH ** TCLP (8 RCRA)	AUGUST 22 - 27	** TCLP TEST REQUESTED ON MAY 23 ON SPORT-0053. NOTE: SPORT-0031, WHICH WAS STILL OPEN, WAS RELOGGED BY GENERAL ENGINEERING LABORATORIES AND RESULTS WERE RECORDED ON SPORT-0031-1R 9605184-01.

Table B-1 (18 Sheets)

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY					
SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
5	MAY 10	8, 9 AND 10	SPORT-0031-2 SPORT-0031-2R NBCE054S000500 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX AND TPH ** TCLP (8 RCRA)	AUGUST 22 - 27	** TCLP TEST REQUESTED ON MAY 23 ON SPORT-0033. NOTE: SPORT-0031, WHICH WAS STILL OPEN, WAS RELOGGED BY GENERAL ENGINEERING LABORATORIES AND RESULTS WERE RECORDED ON SPORT-0031-2R 9605184-02.
6	MAY 10	11 AND 12	SPORT-0031-3 SPORT-0031-3R NBCE054S000600 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX AND TPH ** TCLP (8 RCRA)	AUGUST 22 - 27	** TCLP TEST REQUESTED ON MAY 23 ON SPORT-0033. NOTE: SPORT-0031, WHICH WAS STILL OPEN, WAS RELOGGED BY GENERAL ENGINEERING LABORATORIES AND RESULTS WERE RECORDED ON SPORT-0031-3R 9605184-03.

Table B-1 (18 Sheets)
B-4

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY					
SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
7	MAY 16	13 AND 14	SPORT-0040-1 NBCE054S000700 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX AND TPH ** TCLP (8 RCRA)	AUGUST 22 - 27	** TCLP TEST REQUESTED ON MAY 23 ON SPORT-0040 WHICH WAS STILL OPEN.
8	MAY 16	15	SPORT-0040-2 NBCE054S000800 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX AND TPH ** TCLP (8 RCRA)	AUGUST 22 - 27	** TCLP TEST REQUESTED ON MAY 23 ON SPORT-0040 WHICH WAS STILL OPEN.

Table B-1 (18 Sheets)
B-5

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY					
SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
9	MAY 16	16 AND 17	SPORT-0040-3 NBCE054S000900 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX AND TPH ** TCLP (8 RCRA)	AUGUST 22 - 27	** TCLP TEST REQUESTED ON MAY 23 ON SPORT-0040 WHICH WAS STILL OPEN.
10	MAY 21	18 AND 20	SPORT-0049-1 NBCE054S001000 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX AND TPH ** TCLP (8 RCRA)	AUGUST 22 - 27	** TCLP TEST REQUESTED ON MAY 23 ON SPORT-0049 WHICH WAS STILL OPEN.

Table B-1 (18 Sheets)
B-6

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY

SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
11 +++ SEE REMARKS	MAY 21	19 AND 21	SPORT-0049-2 SPORT-0049-2R NBCE054S001100 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX AND TPH ** TCLP (8 RCRA) +++ TCLP (VOLATILES), TCLP (ACID COMPOUNDS) AND TCLP (BASE/NEUTRAL COMPOUNDS)	AUGUST 22 - 27	** TCLP TEST REQUESTED ON MAY 23 ON SPORT-0049 WHICH WAS STILL OPEN. +++ HIGH EOX RESULTS. SCDHEC LTR DTD 6-26-96 REQUESTED ADDITIONAL TEST ON EXISTING SAMPLE MATERIAL AND RE-SAMPLING OF STOCKPILES. ADDITIONAL TESTS ON EXISTING SAMPLE MATERIAL REQUESTED ON JULY 9 ON SPORT-0096, BUT RESULTS WERE RECORDED UNDER 9605363-02-R-SPORT-0049-2. SEE SAMPLE NOS. 25, 26 AND 27 FOR RE-SAMPLING INFORMATION ON STOCKPILES.

Table B-1 (18 Sheets)
B-7

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY

SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
12	MAY 21	22 AND 23	SPORT-0049-3 NBCE054S001200 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX AND TPH ** TCLP (8 RCRA)	AUGUST 22 - 27	** TCLP TEST REQUESTED ON MAY 23 ON SPORT-0049 WHICH WAS STILL OPEN.
13	MAY 21	24 AND 25	SPORT-0049-4 NBCE054S001300 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX AND TPH ** TCLP (8 RCRA)	AUGUST 22 - 27	** TCLP TEST REQUESTED ON MAY 23 ON SPORT-0049 WHICH WAS STILL OPEN.

Table B-1 (18 Sheets)
B-8

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY					
SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER TEST(S) REQUESTED	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
14	MAY 24	26 AND 27	SPORT-0058-1 NBCE054S001400 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX, TPH AND TCLP (8 RCRA)	AUGUST 22 - 27	
15	MAY 24	28 AND 30	SPORT-0058-2 NBCE054S001500 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX, TPH AND TCLP (8 RCRA)	AUGUST 22 - 27	

Table B-1 (18 Sheets)
B-9

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY					
SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
16	MAY 24	29 AND 31	SPORT-0058-3 NBCE054S001600	AUGUST 22 - 27	
			TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX, TPH AND TCLP (8 RCRA)		
17	JUNE 5	32 AND 34	SPORT-0069-1 NBCE054S001700	AUGUST 22 - 27	
			TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX, TPH AND TCLP (8 RCRA)		

Table B-1 (18 Sheets)
B-10

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY

SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
18	JUNE 5	33 AND 35	SPORT-0069-2 NBCE054S001800 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX, TPH AND TCLP (8 RCRA)	AUGUST 22 - 27	
19 +++ SEE REMARKS	JUNE 5	38 AND 39 +++ SEE REMARKS	SPORT-0069-3 NBCE054S001900 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX, TPH AND TCLP (8 RCRA)	+++ SEE REMARKS	+++ STOCKPILE NOS. 38 AND 39 WERE SPLIT INTO STOCKPILE NOS. 38A, 39A, 38B AND 39B AND WERE RE-SAMPLED BECAUSE OF HIGH CONCENTRATIONS OF LEAD. SEE SAMPLE NOS. 21, 22, 23 AND 24 FOR RE-SAMPLING INFORMATION.

Table B-1 (18 Sheets)
B-11

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY

SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
20	JUNE 5	36, 37 AND 40	SPORT-0069-4 NBCE054S002000 TOTAL METALS (INCLUDING ANTIMONY, BERYLLIUM AND NICKEL), EOX, TPH AND TCLP (8 RCRA)	AUGUST 22 - 27	
21 +++ SEE REMARKS	JULY 18	38A +++ SEE REMARKS *** SEE REMARKS	SPORT-0104-1 NBCE054S002100 TCLP (8 RCRA)	*** SEE REMARKS	+++ STOCKPILE NO. 38 WAS SPLIT INTO STOCKPILE NOS. 38A & 38B AND RE-SAMPLED BECAUSE OF HIGH LEAD RESULTS ON SAMPLE NO. 19 TCLP-METALS TEST. *** STOCKPILE NO. 38A WAS SEPERATED INTO STOCKPILE NOS. 38A-1, 38A-2, 38A-3 AND 38A-4 AND RE-SAMPLED BECAUSE OF HIGH LEAD RESULTS ON THIS SAMPLE (NO. 21). SEE SAMPLE NOS. 28, 29, 30 & 31 FOR RE-SAMPLING INFORMATION.

Table B-1 (18 Sheets)
B-12

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY					
SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER TEST(S) REQUESTED	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
22 +++ SEE REMARKS	JULY 18	39A +++ SEE REMARKS	SPORT-0104-2 NBCE054S002200 TCLP (8 RCRA)	AUGUST 22 - 27	+++ STOCKPILE NO. 39 WAS SPLIT INTO STOCKPILE NOS. 39A & 39B AND RE-SAMPLED BECAUSE OF HIGH LEAD RESULTS ON SAMPLE NO. 19 TCLP-METALS TEST.
23 +++ SEE REMARKS	JULY 18	38B +++ SEE REMARKS	SPORT-0104-3 NBCE054S002300 TCLP (8 RCRA)	AUGUST 22 - 27	+++ STOCKPILE NO. 38 WAS SPLIT INTO STOCKPILE NOS. 38A & 38B AND RE-SAMPLED BECAUSE OF HIGH LEAD RESULTS ON SAMPLE NO. 19 TCLP-METALS TEST.

Table B-1 (18 Sheets)
B-13

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY					
SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER TEST(S) REQUESTED	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
24 +++ SEE REMARKS	JULY 18	39B +++ SEE REMARKS	SPORT-0104-4 NBCE054S002400 ----- TCLP (8 RCRA)	AUGUST 22 - 27	+++ STOCKPILE NO. 39 WAS SPLIT INTO STOCKPILE NOS. 39A & 39B AND RE-SAMPLED BECAUSE OF HIGH LEAD RESULTS ON SAMPLE NO. 19 TCLP-METALS TEST.
25 +++ SEE REMARKS	JULY 19	19 AND 21	SPORT-0106-1 NBCE054S002500 ----- EOX	AUGUST 22 - 27	+++ THIS WAS A RE-SAMPLE OF STOCKPILE NOS. 19 AND 21 BECAUSE OF HIGH EOX RESULTS ON SAMPLE NO. 11. RE-SAMPLE REQUESTED BY SCDHEC LETTER DTD 6-26-96.

Table B-1 (18 Sheets)
B-14

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY

SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
26 +++ SEE REMARKS	JULY 19	19	SPORT-0106-2 NBCE054S002600 TCLP - VOLATILES	AUGUST 22 - 27	+++ THIS ADDITIONAL SAMPLING WAS REQUESTED BY SCDHEC LETTER DTD 6-26-96 BECAUSE OF HIGH EOX RESULTS ON SAMPLE NO. 11.
27 +++ SEE REMARKS	JULY 19	21	SPORT-0106-3 NBCE054S002700 TCLP - VOLATILES	AUGUST 22 - 27	+++ THIS ADDITIONAL SAMPLING WAS REQUESTED BY SCDHEC LETTER DTD 6-26-96 BECAUSE OF HIGH EOX RESULTS ON SAMPLE NO. 11.

Table B-1 (18 Sheets)
B-15

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY					
SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
28 +++ SEE REMARKS *** SEE REMARKS	AUG 13	38A-1 +++ SEE REMARKS *** SEE REMARKS	SPORT-0136-1 NBCE054S002800 TCLP (8 RCRA)	AUGUST 30 *** SEE REMARKS	+++ STOCKPILE NO. 38A WAS SEPERATED INTO STOCKPILE NOS. 38A-1, 38A-2, 38A-3 AND 38A-4 AND RE-SAMPLED BECAUSE OF HIGH LEAD RESULTS ON SAMPLE NO. 21 TCLP-METALS TEST. *** RESULTS FROM THIS SAMPLE (NO. 28) INDICATED HIGH CONCENTRATIONS OF LEAD IN STOCKPILE NO. 38A-1. SOIL WAS PLACED IN 55 GALLON DRUMS AND REMOVED AS HAZARDOUS MATERIAL.

Table B-1 (18 Sheets)
B-16

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY

SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
29 +++ SEE REMARKS *** SEE REMARKS	AUG 13 +++ SEE REMARKS *** SEE REMARKS	38A-2 +++ SEE REMARKS *** SEE REMARKS	SPORT-0136-2 NBCE054S002900 TCLP (8 RCRA)	AUGUST 28 *** SEE REMARKS	<p>+++ STOCKPILE NO. 38A WAS SEPERATED INTO STOCKPILE NOS. 38A-1, 38A-2, 38A-3 AND 38A-4 AND RE-SAMPLED BECAUSE OF HIGH LEAD RESULTS ON SAMPLE NO. 21 TCLP-METALS TEST.</p> <p>*** RESULTS FROM THIS SAMPLE (NO. 29) INDICATED HIGH CONCENTRATIONS OF LEAD IN STOCKPILE NO. 38A-2. SOIL WAS PLACED IN 55 GALLON DRUMS AND REMOVED AS HAZARDOUS MATERIAL.</p>

Table B-1 (18 Sheets)
B-17

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY

SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
30 +++ SEE REMARKS *** SEE REMARKS	AUG 13	38A-3 +++ SEE REMARKS *** SEE REMARKS	SPORT-0136-3 NBCE054S003000 --- TCLP (8 RCRA)	AUGUST 28 *** SEE REMARKS	+++ STOCKPILE NO. 38A WAS SEPERATED INTO STOCKPILE NOS. 38A-1, 38A-2, 38A-3 AND 38A-4 AND RESAMPLED BECAUSE OF HIGH LEAD RESULTS ON SAMPLE NO. 21 TCLP-METALS TEST. *** RESULTS FROM THIS SAMPLE (NO. 30) INDICATED HIGH CONCENTRATIONS OF LEAD IN STOCKPILE NO. 38A-3. SOIL WAS PLACED IN 55 GALLON DRUMS AND REMOVED AS HAZARDOUS MATERIAL.

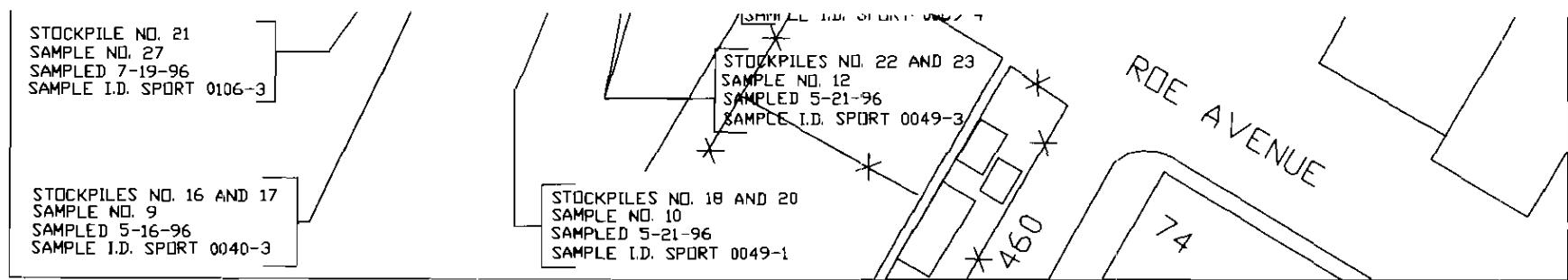
Table B-1 (18 Sheets)
B-18

SWMU 54 WASTE CHARACTERIZATION SAMPLING RESULTS SUMMARY

SAMPLE NUMBER	SAMPLE DATE (1996)	STOCKPILE NUMBER SAMPLED	SAMPLE ID NUMBER	DATE SOIL REMOVED FROM SITE (1996)	REMARKS
			TEST(S) REQUESTED		
31 +++ SEE REMARKS *** SEE REMARKS	AUG 13	38A-4 +++ SEE REMARKS *** SEE REMARKS	SPORT-0136-4 NBCE054S003100 TCLP (8 RCRA)	AUGUST 29 *** SEE REMARKS	<p>+++ STOCKPILE NO. 38A WAS SEPERATED INTO STOCKPILE NOS. 38A-1, 38A-2, 38A-3 AND 38A-4 AND RE-SAMPLED BECAUSE OF HIGH LEAD RESULTS ON SAMPLE NO. 21 TCLP-METALS TEST.</p> <p>*** RESULTS FROM THIS SAMPLE (NO. 31) INDICATED HIGH CONCENTRATIONS OF LEAD IN STOCKPILE NO. 38A-4. SOIL WAS PLACED IN 55 GALLON DRUMS AND REMOVED AS HAZARDOUS MATERIAL.</p>

Table B-1 (18 Sheets)
B-19

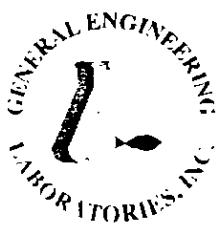
FIGURE B-2
SWMU 54 EXCAVATED SOIL STOCKPILE MAP



ANALYTICAL DATA

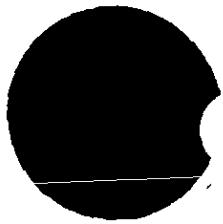
NOTE:

Table B-1 (pages B-2 through B-19) and Figure B-2 (page B-20) of this appendix can be used to make review of the following analytical data more convenient. The analytical data is assembled in sets (usually 3 pages to a set) by sample I.D. number in the same order as they are listed in Table B-1. These data sets are also in chronological order with regard to the date each sample was collected and the soil stockpile map, Figure B-2, reflects which stockpile each soil sample was collected from.



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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 15, 1996

Page 1 of 3

Sample ID	:	SPORT-0024-1
Lab ID	:	9605104-01
Matrix	:	TCLP
Date Collected	:	05/07/96
Date Received	:	05/07/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	0.00183	0.00780	0.500	mg/l	1.0	NRM	05/10/96	0420	84405	1
Arsenic	U	0.00122	0.0421	0.500	mg/l	1.0					
Barium	J	0.776	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0336	0.00330	0.100	mg/l	1.0					
Chromium	U	0.00215	0.00420	0.500	mg/l	1.0					
Lead	U	0.0283	0.0364	0.500	mg/l	1.0					
Selenium	U	0.00332	0.0841	0.300	mg/l	1.0					
Mercury	J	0.000480	0.000148	0.0200	mg/l	1.0	RMJ	05/13/96	1507	84531	2

The following prep procedures were performed:

ICP	FGD	05/09/96	1530	84405	3
Mercury	RMJ	05/10/96	0930	84531	4
TCLP Prep for Metals	JL	05/08/96	1525	84406	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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Page 2 of 3

Sample ID : SPORT-0024-1

M = Method

Method-Description

Notes:

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J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

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NC - 233 NY - 11501
RI - 135 SC - 10120
TN - 02934 UT - E-251
VA - 00151 WA - C223
WI - 999887790

EPI Laboratory Certifications

AL - 41050 AZ - AZ0514
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FL - E87472/87458 MS - 29417
NY - 11502 RI - 138
SC - 10582 TN - 02934
UT - E-227 VA - 00111
WA - C225 NJ - 79002
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Report Date: May 15, 1996

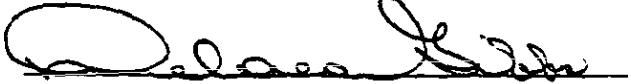
Page 3 of 3

Sample ID : SP0RT-0024-1

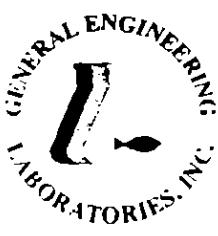
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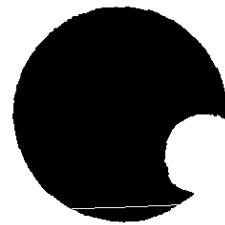

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Project Description: SUPSHIP-Portsmouth Detachment

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Report Date: May 28, 1996

Page 1 of 3

Sample ID	:	SPORT-0042-1
Lab ID	:	9605304-01
Matrix	:	Soil
Date Collected	:	05/07/96
Date Received	:	05/17/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury	J	0.132	0.00229	0.200	mg/kg	1.0	RMJ	05/20/96	1836	84891	N
Silver	J	479	244	980	ug/kg	2.0	NRM	05/21/96	2255	84854	.
Arsenic		4090	182	980	ug/kg	2.0					
Barium		98700	6.50	980	ug/kg	2.0					
Beryllium		1220	1.12	490	ug/kg	2.0					
Cadmium		4080	9.51	490	ug/kg	2.0					
Chromium		75600	58.4	980	ug/kg	2.0					
Nickel		206000	79.1	980	ug/kg	2.0					
Lead		358000	111	490	ug/kg	2.0					
Antimony		30000	93.9	980	ug/kg	2.0					
Selenium	U	-58.4	140	490	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		200	10.0	50.0	mg/kg	1.0	SDW	05/22/96	1000	85008	2
Extractable Organic Halides		64.2	4.65	14.4	mg/kg	1.0	SJ	05/21/96	1420	84940	3

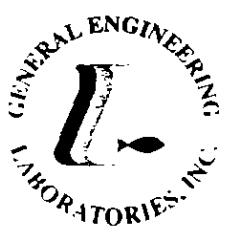
The following prep procedures were performed:

Mercury
TRACE

RMJ 05/20/96 1400 84891 4
DWW 05/20/96 2035 84854 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050





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Page 2 of 3

Sample ID : SPORT-0042-1

M = Method

Method-Description

Notes:

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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

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RI - 135 SC - 10120
TN - 02934 UT - E-251
VA - 00151 WA - C223
WI - 999887790

EPI Laboratory Certifications

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CA - I-1023/2056 CT - PH-0175
FL - E87472/87458 MS - 29417
NY - 11502 RI - 138
SC - 10582 TN - 02934
UT - E-227 VA - 00111
WA - C225 NJ - 79002
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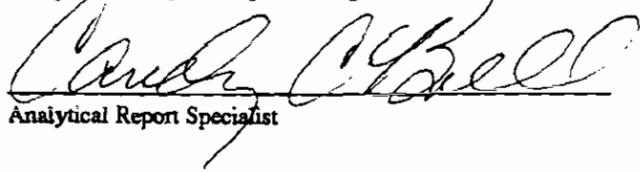
Page 3 of 3

Sample ID : SPORT-0042-1

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Page 1 of 3

Sample ID	:	SPORT-0024-2
Lab ID	:	9605104-02
Matrix	:	TCLP
Date Collected	:	05/07/96
Date Received	:	05/07/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	0.000299	0.00780	0.500	mg/l	1.0	NRM	05/10/96	0425	84405	
Arsenic	U	0.000911	0.0421	0.500	mg/l	1.0					
Barium	J	0.504	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0628	0.00330	0.100	mg/l	1.0					
Chromium	U	0.00346	0.00420	0.500	mg/l	1.0					
Lead	J	0.0460	0.0364	0.500	mg/l	1.0					
Selenium	U	0.00205	0.0841	0.300	mg/l	1.0					
Mercury	U	-0.000100	0.000148	0.0200	mg/l	1.0	RMJ	05/13/96	1509	84531	2

The following prep procedures were performed:

ICP	FGD	05/09/96	1530	84405	3
Mercury	RMJ	05/10/96	0930	84531	4
TCLP Prep for Metals	JL	05/08/96	1525	84406	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311



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Report Date: May 15, 1996

Page 2 of 3

Sample ID : SPORT-0024-2

M = Method

Method-Description

Notes:

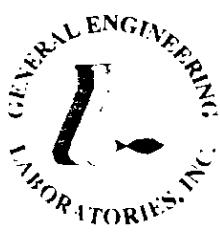
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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

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DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

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Page 3 of 3

Sample ID : SPORT-0024-2

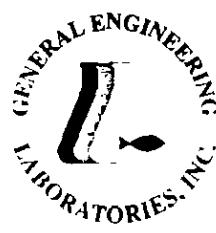
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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 28, 1996

Page 1 of 3

Sample ID : SPORT-0042-2
Lab ID : 9605304-02
Matrix : Soil
Date Collected : 05/07/96
Date Received : 05/17/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury	J	0.0425	0.00213	0.200	mg/kg	1.0	RMJ	05/20/96	1838	84891	N
Silver	J	265	242	970	ug/kg	2.0	NRM	05/21/96	2300	84854	
Arsenic		2580	180	970	ug/kg	2.0					
Barium		69600	6.43	970	ug/kg	2.0					
Beryllium	J	462	1.11	485	ug/kg	2.0					
Cadmium		4160	9.41	485	ug/kg	2.0					
Chromium		61900	57.8	970	ug/kg	2.0					
Nickel		216000	78.3	970	ug/kg	2.0					
Lead		144000	110	485	ug/kg	2.0					
Antimony		1060	92.9	970	ug/kg	2.0					
Selenium	U	-155	139	485	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		310	10.0	50.0	mg/kg	1.0	SDW	05/22/96	1000	85008	2
Extractable Organic Halides		30.6	4.62	14.3	mg/kg	1.0	SJ	05/21/96	1430	84940	3

The following prep procedures were performed:

Mercury
TRACE

RMJ 05/20/96 1400 84891 4
DWV 05/20/96 2035 84854 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050



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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 28, 1996

Page 2 of 3

Sample ID : SPORT-0042-2

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

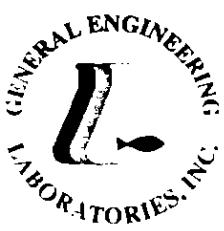
GEL Laboratory Certifications

AL - 41040	AZ - AZ0514
CA - 2089	CT - PH-0169
DE - SC012	FL - E87156/87294
ME - SC012	MS - 10120
NC - 233	NY - 11501
RI - 135	SC - 10120
TN - 02934	UT - E-251
VA - 00151	WA - C223
WI - 999887790	

EPI Laboratory Certifications

AL - 41050	AZ - AZ0514
CA - I-1023/2056	CT - PH-0175
FL - E87472/87458	MS - 29417
NY - 11502	RI - 138
SC - 10582	TN - 02934
UT - E-227	VA - 00111
WA - C225	NJ - 79002
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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

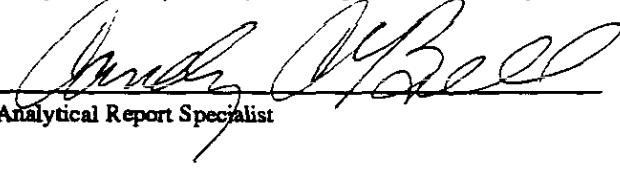
Report Date: May 28, 1996

Page 3 of 3

Sample ID : SPORT-0042-2

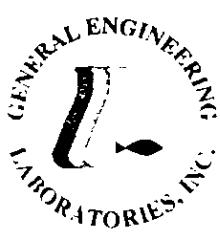
GEL Laboratory Certifications**EPI Laboratory Certifications**

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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 15, 1996

Page 1 of 3

Sample ID	:	SPORT-0024-3
Lab ID	:	9605104-03
Matrix	:	TCLP
Date Collected	:	05/07/96
Date Received	:	05/07/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	0.000865		0.00780	0.500	mg/l	1.0	NRM	05/10/96	0429	84405
Arsenic	U	0.00270		0.0421	0.500	mg/l	1.0				
Barium	J	0.536		0.00220	10.0	mg/l	1.0				
Cadmium	J	0.0178		0.00330	0.100	mg/l	1.0				
Chromium	J	0.0162		0.00420	0.500	mg/l	1.0				
Lead	J	0.120		0.0364	0.500	mg/l	1.0				
Selenium	U	0.00235		0.0841	0.300	mg/l	1.0				
Mercury	U	-0.000270		0.000148	0.0200	mg/l	1.0	RMJ	05/13/96	1511	84531
											2

The following prep procedures were performed:

ICP	FGD	05/09/96	1530	84405	3
Mercury	RMJ	05/10/96	0930	84531	4
TCLP Prep for Metals	JL	05/08/96	1525	84406	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311

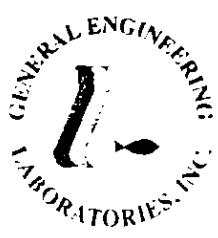


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Project Description: SUPSHIP-Portsmouth Detachment

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Sample ID : SPORT-0024-3

M = Method

Method-Description

Notes:

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J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

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ME - SC012	MS - 10120
NC - 233	NY - 11501
RI - 135	SC - 10120
TN - 02934	UT - E-251
VA - 00151	WA - C223
WI - 999887790	
	PA - 68-485
	AL - 41050
	CA - I-1023/2056
	FL - E87472/87458
	NY - 11502
	SC - 10582
	UT - E-227
	WA - C225
	PA - 68-485
	AZ - AZ0514
	CT - PH-0175
	MS - 29417
	RI - 138
	TN - 02934
	VA - 00111
	NJ - 79002
	WV - 235





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Sample ID : SPORT-0024-3

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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 28, 1996

Page 1 of 3

Sample ID : SPORT-0042-3
Lab ID : 9605304-03
Matrix : Soil
Date Collected : 05/07/96
Date Received : 05/17/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury		0.370	0.00238	0.200	mg/kg	1.0	RMJ	05/20/96	1841	84891	7
Silver	J	302	240	962	ug/kg	2.0	NRM	05/21/96	2305	84854	
Arsenic		2790	179	962	ug/kg	2.0					
Barium		61600	6.38	962	ug/kg	2.0					
Beryllium		1140	1.10	481	ug/kg	2.0					
Cadmium		1870	9.33	481	ug/kg	2.0					
Chromium		53000	57.3	962	ug/kg	2.0					
Nickel		54600	77.6	962	ug/kg	2.0					
Lead		500000	109	481	ug/kg	2.0					
Antimony		1400	92.2	962	ug/kg	2.0					
Selenium	U	-1.78	138	481	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		520	10.0	50.0	mg/kg	1.0	SDW	05/22/96	1000	85008	2
Extractable Organic Halides		65.2	4.43	13.7	mg/kg	1.0	SJ	05/21/96	1441	84940	3

The following prep procedures were performed:

Mercury RMJ 05/20/96 1400 84891 4
TRACE DVW 05/20/96 2035 84854 5

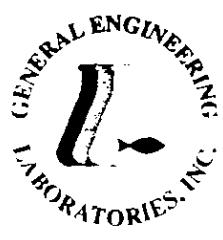
M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 28, 1996

Page 2 of 3

Sample ID : SPORT-0042-3

M = Method Method-Description

Notes:

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J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications

AL - 41040 AZ - AZ0514
CA - 2089 CT - PH-0169
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ME - SC012 MS - 10120
NC - 233 NY - 11501
RI - 135 SC - 10582
TN - 02934 UT - E-227
VA - 00151 WA - C223
WI - 999887790

EPI Laboratory Certifications

AL - 41050 AZ - AZ0514
CA - I-1023/2056 CT - PH-0175
FL - E87472/87458 MS - 29417
NY - 11502 RI - 138
SC - 10582 TN - 02934
UT - E-227 VA - 00111
WA - C223 NJ - 79002
PA - 68-485 WV - 235



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Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 28, 1996

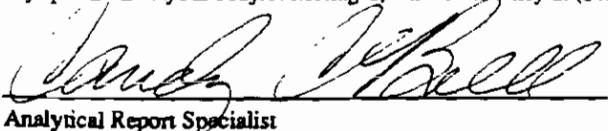
Page 3 of 3

Sample ID : SPORT-0042-3

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Analytical Report Specialist

WC00196

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Charleston, South Carolina 29414
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Charleston, South Carolina 29417
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Page 1 of 1 Q605104

CHAIN OF CUSTODY RECORD

J.O. 645046 CEC 99

Client Name/Facility Name SPORT ENV DET CHASN Collected by/Company DARL P. MARKET SPORT ENV DET CHASN JERSEY PROVACOLLE							SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods Use F or P in the boxes to indicate whether sample was filtered and/or preserved CCL 21291 Remarks NBCE0545000100 SWMU-54 NBCE0545000200 SWMU-54 NBCE0545000300 SWMU-54 Field BLANK												
SAMPLE ID	DATE	TIME	WELL SOIL COMP GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrile/Nitrate	VOC - Specific Method required	METALS - Specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Caliform - specify type
					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
01	SPORT-0024-1	5/7/96	0710	X	2						X								
02	SPORT-0024-2	5/7/96	0725	X	2						X								
03	SPORT-0024-3	5/7/96	0748	X	2						X								
04	SPORT-0024-4	5/7/96	1100	X	1						X								
Relinquished by:				Date:	Time:	Received by:	Relinquished by:				Date:	Time:	Received by:						
<i>Ron H. Lewis</i>				5/7/96	1110	<i>J.R. Hines, Jr.</i>	<i>J.R. Hines, Jr.</i>				5/7/96	1535	<i>J.T. V. (J.V.)</i>						
Relinquished by:				Date:	Time:	Received by lab by:	Date:				Time:	Remarks:							
						<i>Sage Kinard</i>	5/7/96 1630												

White = sample collector

Yellow = file

Pink = with report

NP177 00196

JCB

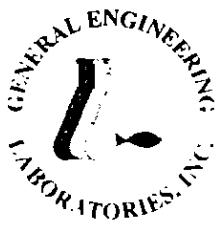
General Engineering Services, Inc.
 2040 Savage Road
 Charleston, South Carolina 29414
 PO Box 30712
 Charleston, South Carolina 29417
 803-556-8171

Page 1 of 1

9605304

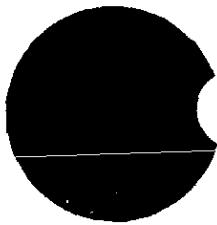
CHAIN OF CUSTODY RECORD

Client Name / Facility Name: PORTSMOUTH SUPSHIP - DETACHMENT Collected By / Company:				# of containers	SAMPLE ANALYSIS REQUIRED(x) - use remarks area to specify specific compounds or methods												← Use F or P in the boxes to indicate whether sample was filtered and/or preserved			
SAMPLE ID	DATE	TIME	WELL SOIL COMP CRAB		REF. conductivity	TOC / DOC	ECO ^x	Chloride, Fluoride, Sulfate	Nitrate/Nitrite	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	BEN Extractables		PCBs	Cyanide	Calcareous Comp.
-01	SPORT-0042-1	5/7/96	0710	X		X				X									X	RCRA Metals plus Sb, Be, Ni
-02	SPORT-0042-2	5/7/96	0725	X		X				X									X	RCRA Metals plus Sb, Be, Ni
-03	SPORT-0042-3	5/7/96	0748	X		X				X									X	RCRA Metals plus Sb, Be, Ni
Remarks																				
Relinquished by:		Date	Time	Received by:				Relinquished by:				Date	Time	Received by:						
Relinquished by:		Date	Time	Received by lab by:				Relinquished by:				Date	Time	Remarks:						
				Researcher S79%										Initiated upon Receipt - Log-In						



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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 20, 1996

Page 1 of 3

Sample ID : SPORT-0031-1
Lab ID : 9605184-01
Matrix : Soil
Date Collected : 05/10/96
Date Received : 05/10/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury		0.450	0.00244	0.200	mg/kg	1.0	RMJ	05/15/96	2127	84618	1
Silver	J	439	249	1000	ug/kg	2.0	NRM	05/17/96	1958	84697	1
Arsenic		6050	186	1000	ug/kg	2.0					
Barium		116000	6.63	1000	ug/kg	2.0					
Beryllium		3020	1.14	500	ug/kg	2.0					
Cadmium		2260	9.70	500	ug/kg	2.0					
Chromium		89400	59.6	1000	ug/kg	2.0					
Nickel		79100	80.7	1000	ug/kg	2.0					
Lead		788000	113	500	ug/kg	2.0					
Antimony		12500	95.8	1000	ug/kg	2.0					
Selenium		2420	143	500	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		340	10.0	50.0	mg/kg	1.0	SDW	05/16/96	0900	84767	2
Extractable Organic Halides		163	4.84	15.0	mg/kg	1.0	SJ	05/14/96	1733	84661	3

The following prep procedures were performed:

Mercury

TRACE

RMJ 05/14/96 1500 84618 4

FGD 05/15/96 1530 84697 5

Comments:

A dilution was required for Metals due to matrix interference. As a result the detection limits are elevated.





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Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 20, 1996

Page 2 of 3

Sample ID : SPORT-0031-1

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050

Notes:

The qualifiers in this report are defined as follows:

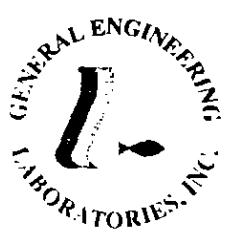
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AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
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VA - 00151	WA - C223	PA - 68-485	WV - 235





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 20, 1996

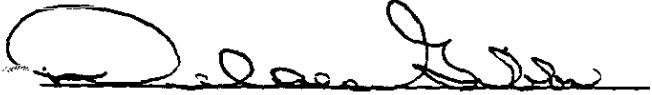
Page 3 of 3

Sample ID : SPORT-0031-1

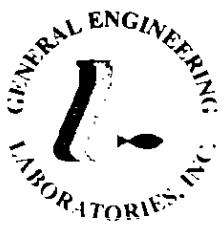
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WI - 999887790

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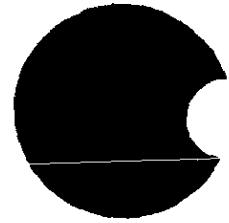

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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 1 of 3

Sample ID	:	SPORT-0031-1R 9605184-01
Lab ID	:	9605386-01
Matrix	:	TCLP
Date Collected	:	05/10/96
Date Received	:	05/22/96
Priority	:	Routine
Collector	:	Client

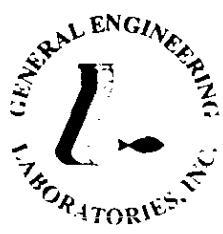
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0263	0.00780	0.500	mg/l	1.0	JSS	05/28/96	1203	85145	
Arsenic	U	-0.126	0.0421	0.500	mg/l	1.0					
Barium	J	0.337	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0220	0.00330	0.100	mg/l	1.0					
Chromium	J	0.189	0.00420	0.500	mg/l	1.0					
Lead	J	0.286	0.0364	0.500	mg/l	1.0					
Selenium	U	-0.169	0.0841	0.300	mg/l	1.0					
Mercury	J	0.000150	0.000148	0.0200	mg/l	1.0	RMJ	05/28/96	1147	85153	2

The following prep procedures were performed:

ICP	FGD	05/24/96	1500	85145	3
Mercury	RMJ	05/24/96	1245	85153	4
TCLP Prep for Metals	JL	05/22/96	1935	85019	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 2 of 3

Sample ID : SPORT-0031-1R 9605184-01

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

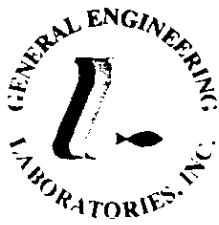
GEL Laboratory Certifications

AL - 41040 AZ - AZ0514
CA - 2089 CT - PH-0169
DE - SC012 FL - E87156/87294
ME - SC012 MS - 10120
NC - 233 NY - 11501
RI - 135 SC - 10120
TN - 02934 UT - E-251
VA - 00151 WA - C223
WI - 999887790

EPI Laboratory Certifications

AL - 41050 AZ - AZ0514
CA - 1-1023/2056 CT - PH-0175
FL - E87472/87458 MS - 29417
NY - 11502 RI - 138
SC - 10582 TN - 02934
UT - E-227 VA - 00111
WA - C225 NJ - 79002
PA - 68-485 WV - 235





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CERTIFICATE OF ANALYSIS

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 3 of 3

Sample ID : SPORT-0031-1R 9605184-01

GEL Laboratory Certifications

EPI Laboratory Certifications

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Analytical Report Specialist





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1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 20, 1996

Page 1 of 3

Sample ID	:	SPORT-0031-2
Lab ID	:	9605184-02
Matrix	:	Soil
Date Collected	:	05/10/96
Date Received	:	05/10/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury		0.569	0.00210	0.200	mg/kg	1.0	RMJ	05/15/96	2129	84618	
Silver	J	906	249	1000	ug/kg	2.0	NRM	05/17/96	2003	84697	A
Arsenic		7150	186	1000	ug/kg	2.0					
Barium		124000	6.63	1000	ug/kg	2.0					
Beryllium		2650	1.14	500	ug/kg	2.0					
Cadmium		1990	9.70	500	ug/kg	2.0					
Chromium		85900	59.6	1000	ug/kg	2.0					
Nickel		82700	80.7	1000	ug/kg	2.0					
Lead		873000	113	500	ug/kg	2.0					
Antimony		6860	95.8	1000	ug/kg	2.0					
Selenium		2580	143	500	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		340	10.0	50.0	mg/kg	1.0	SDW	05/16/96	0900	84767	2
Extractable Organic Halides		138	4.53	14.0	mg/kg	1.0	SJ	05/14/96	1753	84661	3

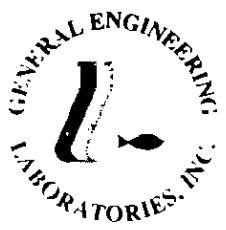
The following prep procedures were performed:

Mercury RMJ 05/14/96 1500 84618 4
TRACE FGD 05/15/96 1530 84697 5

Comments:

A dilution was required for Metals due to matrix interference. As a result
the detection limits are elevated.





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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 20, 1996

Page 2 of 3

Sample ID	: SPORT-0031-2
M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050

Notes:

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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235



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Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 20, 1996

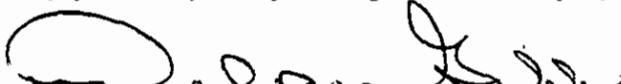
Page 3 of 3

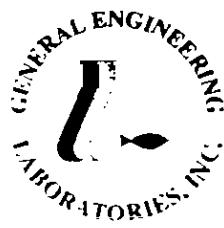
Sample ID : SPORT-0031-2

GEL Laboratory Certifications**EPI Laboratory Certifications**

WI - 999887790

This data report has been prepared and reviewed
in accordance with General Engineering Laboratories
standard operating procedures. Please direct
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Analytical Report Specialist



GENERAL ENGINEERING LABORATORIES

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CERTIFICATE OF ANALYSIS

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 1 of 3

Sample ID	:	SPORT-0031-2R 9605184-02
Lab ID	:	9605386-02
Matrix	:	TCLP
Date Collected	:	05/10/96
Date Received	:	05/22/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0250	0.00780	0.500	mg/l	1.0	JSS	05/28/96	1205	85145	
Arsenic	U	-0.102	0.0421	0.500	mg/l	1.0					
Barium	J	0.372	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0205	0.00330	0.100	mg/l	1.0					
Chromium	J	0.0117	0.00420	0.500	mg/l	1.0					
Lead	J	0.224	0.0364	0.500	mg/l	1.0					
Selenium	U	-0.218	0.0841	0.300	mg/l	1.0					
Mercury	J	0.000330	0.000148	0.0200	mg/l	1.0	RMJ	05/28/96	1149	85153	2

The following prep procedures were performed:

ICP	FGD	05/24/96	1500	85145	3
Mercury	RMJ	05/24/96	1245	85153	4
TCLP Prep for Metals	JL	05/22/96	1935	85019	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 2 of 3

Sample ID : SPORT-0031-2R 9605184-02

M = Method

Method-Description

Notes:

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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

~~Indicates that a quality control analyte recovery is outside of specified acceptance criteria.~~

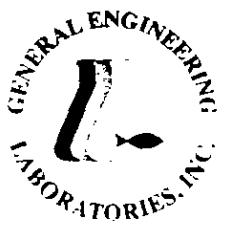
GEL Laboratory Certifications

AL - 41040	AZ - AZ0514
CA - 2089	CT - PH-0169
DE - SC012	FL - E87156/87294
ME - SC012	MS - 10120
NC - 233	NY - 11501
RI - 135	SC - 10120
TN - 02934	UT - E-251
VA - 00151	WA - C223
WI - 999887790	

EPI Laboratory Certifications

AL - 41050	AZ - AZ0514
CA - I-1023/2056	CT - PH-0175
FL - E87472/87458	MS - 29417
NY - 11502	RI - 138
SC - 10582	TN - 02934
UT - E-227	VA - 00111
WA - C225	NJ - 79002
PA - 68-485	WV - 235





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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

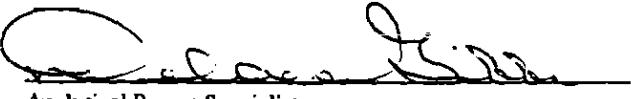
Page 3 of 3

Sample ID : SPORT-0031-2R 9605184-02

GEL Laboratory Certifications

EPI Laboratory Certifications

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in accordance with General Engineering Laboratories
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Analytical Report Specialist



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SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 21, 1996

Page 1 of 3

Sample ID	:	SPORT-0031-3
Lab ID	:	9605184-03
Matrix	:	Soil
Date Collected	:	05/10/96
Date Received	:	05/10/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury		0.392	0.00237	0.200	mg/kg	1.0	RMJ	05/15/96	2131	84618	.
Silver	J	331	247	990	ug/kg	2.0	NRM	05/17/96	2008	84697	1
Arsenic		6190	184	990	ug/kg	2.0					
Barium		95300	6.56	990	ug/kg	2.0					
Beryllium		1670	1.13	495	ug/kg	2.0					
Cadmium		2480	9.60	495	ug/kg	2.0					
Chromium		83500	59.0	990	ug/kg	2.0					
Nickel		85100	79.9	990	ug/kg	2.0					
Lead		704000	112	495	ug/kg	2.0					
Antimony		6860	94.8	990	ug/kg	2.0					
Selenium		2080	142	495	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		460	10.0	50.0	mg/kg	1.0	SDW	05/16/96	0900	84767	2
Extractable Organic Halides		264	4.83	15.0	mg/kg	1.0	SJ	05/14/96	1806	84661	3

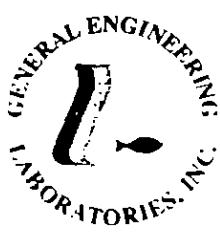
The following prep procedures were performed:

Mercury RMJ 05/14/96 1500 84618 4
TRACE FGD 05/15/96 1530 84697 5

Comments:

A dilution was required for Metals due to matrix interference. As a result the detection limits are elevated.





GENERAL ENGINEERING LABORATORIES

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SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 21, 1996

Page 2 of 3

Sample ID	:	SPORT-0031-3
M = Method		Method-Description
M 1		EPA 6010A
M 2		EPA 9071
M 3		GEL
M 4		EPA 7471
M 5		EPA 3050

Notes:

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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235





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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 21, 1996

Page 3 of 3

Sample ID : SPORT-0031-3

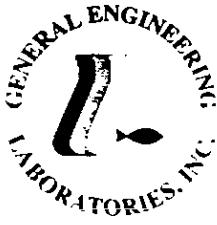
GEL Laboratory Certifications**EPI Laboratory Certifications**

WI - 999887790

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Karen Blakeney
Analytical Report Specialist





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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 1 of 3

Sample ID	:	SPORT-0031-3R 9605184-03
Lab ID	:	9605386-03
Matrix	:	TCLP
Date Collected	:	05/10/96
Date Received	:	05/22/96
Priority	:	Routine
Collector	:	Client

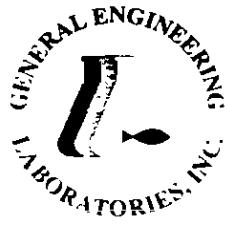
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0302	0.00780	0.500	mg/l	1.0	JSS	05/28/96	1217	85145	
Arsenic	U	-0.105	0.0421	0.500	mg/l	1.0					
Barium	J	0.372	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0198	0.00330	0.100	mg/l	1.0					
Chromium	J	0.0803	0.00420	0.500	mg/l	1.0					
Lead	J	0.171	0.0364	0.500	mg/l	1.0					
Selenium	U	-0.181	0.0841	0.300	mg/l	1.0					
Mercury	J	0.000220	0.000148	0.0200	mg/l	1.0	RMJ	05/28/96	1151	85153	2

The following prep procedures were performed:

ICP	FGD	05/24/96	1500	85145	3
Mercury	RMJ	05/24/96	1245	85153	4
TCLP Prep for Metals	JL	05/22/96	1935	85019	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 2 of 3

Sample ID : SPORT-0031-3R 9605184-03

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

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GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
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ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			





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cc: NPWC00196

Report Date: May 30, 1996

Page 3 of 3

Sample ID : SPORT-0031-3R 9605184-03

GEL Laboratory Certifications

EPI Laboratory Certifications

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standard operating procedures. Please direct
any questions to your Project Manager, Karen Blakeney at (803) 769-7386.


Analytical Report Specialist



WC 00196

Page 1 of 1 9605184

CHAIN OF CUSTODY RECORD

J.O. 645046 CEC 99

General Engineering Laboratories, Inc.
 2040 Savage Road
 Charleston, South Carolina 29414
 P.O. Box 30712
 Charleston, South Carolina 29417
 (803) 556-8171

						SAMPLE ANALYSIS REQUIRED (X) - use remarks area to specify specific compounds or methods																
						pH, conductivity	TOD/DOC	TOX / EOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC Specified Method required	PCP's	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type	TPH	
											SPEC / CMN METALS - specify											
						# OF CONTAINERS																
SAMPLE ID	DATE	TIME	WELL	SOIL	COMP																	
WELL	SOIL	COMP	GRAB																			
01	SPORT-0031-1	5/10/96	0655	XX	XX	4	X			X								X	NBCE0545000400 SWMU - 54			
02	SPORT-0031-2	5/10/96	0721	XX	XX	4	X			X								X	NBCE0545000500 SWMU - 54			
03	SPORT-0031-3	5/10/96	0750	XX	XX	4	X			X								X	NBCE0545000600 SWMU - 54			
																		NET 1915 :				
																		1) RCBM METALS				
																		2) Manganese - ICP				
																		3) BERYLLIUM - ICP				
																		4) NICKEL - ICP				
Relinquished by:						Date:	Time:	Received by:				Relinquished by:				Date:	Time:	Received by:				
<i>Dan R Morse</i>						5/10/96	10:17	<i>W. J. Hines, Jr.</i>				<i>W. J. Hines, Jr.</i>				5/10/96	11:30	<i>Bob Gochis</i>				
Relinquished by:						Date:	Time:	Received by lab by:				Date:	Time:	Remarks:								
<i>Bob Gochis</i>						5/10/96	14:45	<i>D. Morse</i>				3/10	14:50									

NF 200196

K.B.

CHAIN OF CUSTODY RECORD

Page 1 of 1 9405384

General Engineering Services, Inc.
2040 Savage Road
Charleston, South Carolina 29414
PO Box 30712
Charleston, South Carolina 29417
803-556-8171

Client Name / Facility Name NPLC 00196 - SUPSHIP				# of containers	SAMPLE ANALYSIS REQUIRED(s) - use remarks area to specify specific compounds or methods												Use F or P in the boxes to indicate whether sample was filtered and/or preserved		
SAMPLE ID	DATE	TIME	WELL SOIL COMP GRAB		pH, conductivity	TOC / DOC	TOX	Chloride, Fluoride, Sulfate	Nitrate/Nitrite	VOC - Specific Method Recorded	METALS - Specify	Pesticide	Harmicide	Total Phenol	AroA Estimatable	B/N Estimatable	PCBs	Cyanide	Caliform - specify type
SPORT-0031-1 R 9605184-01	5/10/96	0655	y																TCLP- Metals
SPORT-0031-2 R 9605184-02	5/10/96	0721	x																TCLP- Metals
SPORT-0031-3 R 9605184-03	5/10/96	0750	x																TCLP- Metals
Relinquished by:				Date	Time	Received by:			Relinquished by:			Received by:			Date	Time	Received by:		
Relinquished by:				Date	Time	Received by lab by: <i>Lorraine</i>			Date	Time	Remarks: <i>Initiated from Receipt Log-In</i>								



GENERAL ENGINEERING LABORATORIES

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CERTIFICATE OF ANALYSIS

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 23, 1996

Page 3 of 3

Sample ID : SPORT-0040-1

GEL Laboratory Certifications

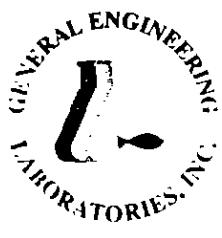
WI - 999887790

EPI Laboratory Certifications

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any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

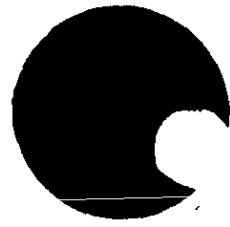
Analytical Report Specialist





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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 23, 1996

Page 1 of 3

Sample ID	: SPORT-0040-1
Lab ID	: 9605298-01
Matrix	: Soil
Date Collected	: 05/16/96
Date Received	: 05/16/96
Priority	: Routine
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury		0.365	0.00216	0.200	mg/kg	1.0	RMJ	05/17/96	1852	84834	1
Silver	J	397	237	952	ug/kg	2.0	WCC	05/20/96	1038	84815	
Arsenic		4360	177	952	ug/kg	2.0					
Barium		68300	6.31	952	ug/kg	2.0					
Beryllium		1190	1.09	476	ug/kg	2.0					
Cadmium		1790	9.23	476	ug/kg	2.0					
Chromium		69700	56.7	952	ug/kg	2.0					
Nickel		39300	76.8	952	ug/kg	2.0					
Lead		748000	108	476	ug/kg	2.0					
Antimony		4100	91.2	952	ug/kg	2.0					
Selenium		749	136	476	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		190	10.0	50.0	mg/kg	1.0	SDW	05/21/96	0930	84942	2
Extractable Organic Halides		110	4.84	15.0	mg/kg	1.0	SJ	05/21/96	1513	84940	3

The following prep procedures were performed:

Mercury

RMJ 05/17/96 1200 84834 4

TRACE

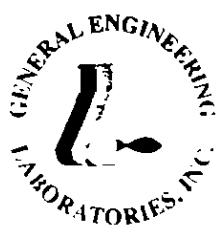
DVW 05/17/96 2145 84815 5

Comments:

A dilution was required for Metals Analysis due to high concentration(s).

As a result, the detection limits are elevated.





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Sample ID : SPORT-0040-1

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050

Notes:

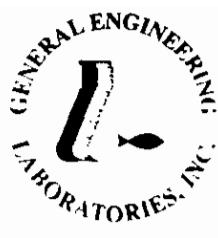
The qualifiers in this report are defined as follows:

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235



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Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

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Page 1 of 3

Sample ID : SPORT-0040-1
Lab ID : 9605298-07
Matrix : TCLP
Date Collected : 05/16/96
Date Received : 05/16/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0352		0.00780	mg/l	1.0	JSS	05/24/96	1251	85080	
Arsenic	U	-0.187		0.0421	mg/l	1.0					
Barium	J	0.445		0.00220	mg/l	1.0					
Cadmium	J	0.0203		0.00330	mg/l	1.0					
Chromium	J	0.0824		0.00420	mg/l	1.0					
Lead		0.589		0.0364	mg/l	1.0					
Selenium	U	-0.0957		0.0841	mg/l	1.0					
Mercury	J	0.0158		0.000148	mg/l	1.0	RMJ	05/24/96	1409	85087	2

The following prep procedures were performed:

ICP	DVW	05/23/96	1920	85080	3
Mercury	RMJ	05/23/96	1940	85087	4
TCLP Prep for Metals	JL	05/22/96	1935	85019	5

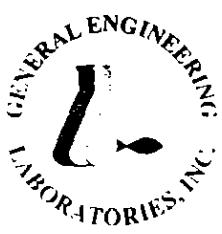
M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311



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Project Description: SUPSHIP-Portsmouth Detachment

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Sample ID : SPORT-0040-1

M = Method

Method-Description

Notes:

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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications

AL - 41040 AZ - AZ0514
CA - 2089 CT - PH-0169
DE - SC012 FL - E87156/87294
ME - SC012 MS - 10120
NC - 233 NY - 11501
RI - 135 SC - 10120
TN - 02934 UT - E-251
VA - 00151 WA - C223
WI - 999887790

EPI Laboratory Certifications

AL - 41050 AZ - AZ0514
CA - I-1023/2056 CT - PH-0175
FL - E87472/87458 MS - 29417
NY - 11502 RI - 138
SC - 10582 TN - 02934
UT - E-227 VA - 00111
WA - C225 NJ - 79002
PA - 68-485 WV - 235





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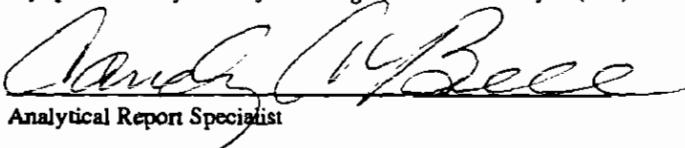
Page 3 of 3

Sample ID : SPCRT-0040-1

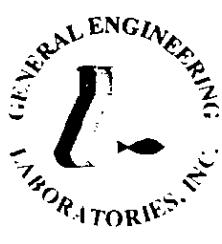
GEL Laboratory Certifications

EPI Laboratory Certifications

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Linda M. Beece
Analytical Report Specialist





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Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 23, 1996

Page 1 of 3

Sample ID : SPORT-0040-2
Lab ID : 9605298-02
Matrix : Soil
Date Collected : 05/16/96
Date Received : 05/16/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury		0.350	0.00229	0.200	mg/kg	1.0	RMJ	05/17/96	1855	84834	
Silver	J	646	244	980	ug/kg	2.0	WCC	05/20/96	1043	84815	
Arsenic		4950	182	980	ug/kg	2.0					
Barium		97100	6.50	980	ug/kg	2.0					
Beryllium		2170	1.12	490	ug/kg	2.0					
Cadmium		2450	9.51	490	ug/kg	2.0					
Chromium		79000	58.4	980	ug/kg	2.0					
Nickel		44800	79.1	980	ug/kg	2.0					
Lead		814000	111	490	ug/kg	2.0					
Antimony		7140	93.9	980	ug/kg	2.0					
Selenium		1110	140	490	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		130	10.0	50.0	mg/kg	1.0	SDW	05/21/96	0930	84942	2
Extractable Organic Halides		112	4.42	13.7	mg/kg	1.0	SJ	05/21/96	1524	84940	3

The following prep procedures were performed:

Mercury RMJ 05/17/96 1200 84834 4
TRACE DVW 05/17/96 2145 84815 5

Comments:

A dilution was required for Metals Analysis due to high concentration(s).
As a result, the detection limits are elevated.





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Page 2 of 3

Sample ID : SPORT-0040-2

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050

Notes:

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 - U indicates that the analyte was not detected at a concentration greater than the detection limit.
 - * indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 23, 1996

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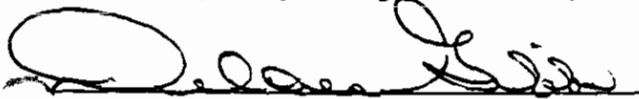
Sample ID : SPORT-0040-2

GEL Laboratory Certifications

WI - 999887790

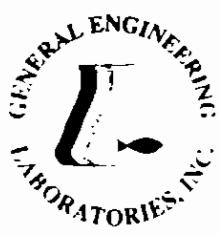
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Sample ID : SPORT-0040-2
Lab ID : 9605298-08
Matrix : TCLP
Date Collected : 05/16/96
Date Received : 05/16/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0311	0.00780	0.500	mg/l	1.0	JSS	05/24/96	1253	85080	1
Arsenic	U	-0.159	0.0421	0.500	mg/l	1.0					
Barium	J	0.320	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0205	0.00330	0.100	mg/l	1.0					
Chromium	J	0.0632	0.00420	0.500	mg/l	1.0					
Lead	J	0.269	0.0364	0.500	mg/l	1.0					
Selenium	U	-0.171	0.0841	0.300	mg/l	1.0					
Mercury	J	0.0104	0.000148	0.0200	mg/l	1.0	RMJ	05/24/96	1411	85087	2

The following prep procedures were performed:

ICP DVW 05/23/96 1920 85080 3
Mercury RMJ 05/23/96 1940 85087 4
TCLP Prep for Metals JL 05/22/96 1935 85019 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311



9605298-08

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Sample ID : SPORT-0040-2

M = Method

Method-Description

Notes:

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GEL Laboratory Certifications

EPI Laboratory Certifications

AL - 41040	AZ - AZ0514
CA - 2089	CT - PH-0169
DE - SC012	FL - E87156/87294
ME - SC012	MS - 10120
NC - 233	NY - 11501
RI - 135	SC - 10120
TN - 02934	UT - E-251
VA - 00151	WA - C223
WI - 999887790	

AL - 41050	AZ - AZ0514
CA - I-1023/2056	CT - PH-0175
FL - E87472/87458	MS - 29417
NY - 11502	RI - 138
SC - 10582	TN - 02934
UT - E-227	VA - 00111
WA - C225	NJ - 79002
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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

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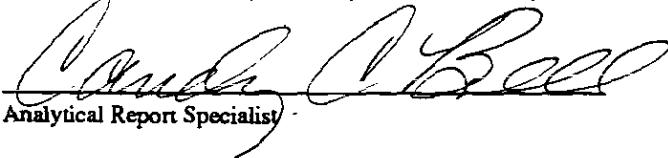
Page 3 of 3

Sample ID : SPORT-0040-2

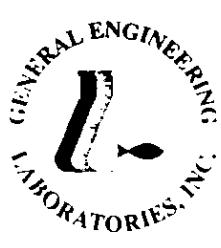
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Sample ID : SPORT-0040-3
Lab ID : 9605298-03
Matrix : Soil
Date Collected : 05/16/96
Date Received : 05/16/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury		0.373	0.00244	0.200	mg/kg	1.0	RMJ	05/17/96	1857	84834	N
Silver		1160	242	970	ug/kg	2.0	WCC	05/20/96	1047	84815	A
Arsenic		6160	180	970	ug/kg	2.0					
Barium		132000	6.43	970	ug/kg	2.0					
Beryllium		2610	1.11	485	ug/kg	2.0					
Cadmium		1930	9.41	485	ug/kg	2.0					
Chromium		79500	57.8	970	ug/kg	2.0					
Nickel		50900	78.3	970	ug/kg	2.0					
Lead		788000	110	485	ug/kg	2.0					
Antimony		20700	92.9	970	ug/kg	2.0					
Selenium		1240	139	485	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		130	10.0	50.0	mg/kg	1.0	SDW	05/21/96	0930	84942	2
Extractable Organic Halides		118	4.71	14.6	mg/kg	1.0	SJ	05/21/96	1535	84940	3

The following prep procedures were performed:

Mercury RMJ 05/17/96 1200 84834 4
TRACE DVW 05/17/96 2145 84815 5

Comments:

A dilution was required for Metals Analysis due to high concentration(s).
As a result, the detection limits are elevated.





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Project Description: SUPSHIP-Portsmouth Detachment

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Sample ID	Method-Description
SAMPLE-0040-3	EPA 6010A
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050

Notes:

The qualifiers in this report are defined as follows:

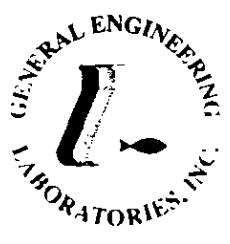
- indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications	EPI Laboratory Certifications
AL - 41040	AZ - AZ0514
CA - 2089	CT - PH-0169
DE - SC012	FL - E87156/87294
ME - SC012	MS - 10120
NC - 233	NY - 11501
RI - 135	SC - 10120
TN - 02934	UT - E-251
VA - 00151	WA - C223
	WA - C223
	PA - 68-485





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

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Sample ID : SPORT-0040-3

GEL Laboratory Certifications

WI - 999887790

EPI Laboratory Certifications

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Analytical Report Specialist



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

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Sample ID : SPORT-0040-3
Lab ID : 9605298-09
Matrix : TCLP
Date Collected : 05/16/96
Date Received : 05/16/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0332	0.00780	0.500	mg/l	1.0	JSS	05/24/96	1257	85080	1
Arsenic	U	-0.138	0.0421	0.500	mg/l	1.0					
Barium	J	0.424	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0229	0.00330	0.100	mg/l	1.0					
Chromium	J	0.00530	0.00420	0.500	mg/l	1.0					
Lead	J	0.278	0.0364	0.500	mg/l	1.0					
Selenium	U	0.0143	0.0841	0.300	mg/l	1.0					
Mercury	J	0.0154	0.000148	0.0200	mg/l	1.0	RMJ	05/24/96	1414	85087	2

The following prep procedures were performed:

ICP DVW 05/23/96 1920 85080 3
Mercury RMJ 05/23/96 1940 85087 4
TCLP Prep for Metals JL 05/22/96 1935 85019 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311



9605298-09

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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 28, 1996

Page 2 of 3

Sample ID : SPORT-0040-3

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications

AL - 41040
CA - 2089
DE - SC012
ME - SC012
NC - 233
RI - 135
TN - 02934
VA - 00151
WI - 999887790

EPI Laboratory Certifications

AZ - AZ0514
CT - PH-0169
FL - E87156/87294
MS - 10120
NY - 11501
SC - 10120
UT - E-251
WA - C223

AL - 41050
CA - I-1023/2056
FL - E87472/87458
NY - 11502
SC - 10582
UT - E-227
WA - C225
PA - 68-485

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CT - PH-0175
MS - 29417
RI - 138
TN - 02934
VA - 00111
NJ - 79002
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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 28, 1996

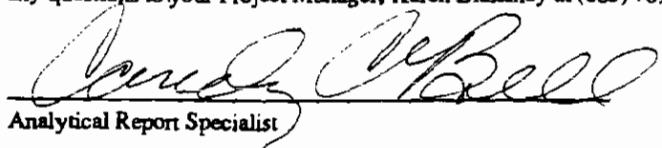
Page 3 of 3

Sample ID : SPORT-0040-3

GEL Laboratory Certifications

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Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

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Page 1 of 3

Sample ID : SPORT-0040-4
Lab ID : 9605298-10
Matrix : TCLP
Date Collected : 05/16/96
Date Received : 05/16/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0343	0.00780	0.500	mg/l	1.0	JSS	05/24/96	1259	85080	1
Arsenic	U	-0.150	0.0421	0.500	mg/l	1.0					
Barium	J	0.382	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0172	0.00330	0.100	mg/l	1.0					
Chromium	J	0.0835	0.00420	0.500	mg/l	1.0					
Lead		0.525	0.0364	0.500	mg/l	1.0					
Selenium	U	-0.0588	0.0841	0.300	mg/l	1.0					
Mercury	J	0.0159	0.000148	0.0200	mg/l	1.0	RMJ	05/24/96	1416	85087	2

The following prep procedures were performed:

ICP DVW 05/23/96 1920 85080 3
Mercury RMJ 05/23/96 1940 85087 4
TCLP Prep for Metals JL 05/22/96 1935 85019 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

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Report Date: May 28, 1996

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Sample ID : SPORT-0040-4

M = Method Method-Description

Notes:

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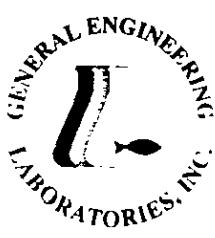
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U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications		EPI Laboratory Certifications	
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CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 28, 1996

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Sample ID : SPORT-0040-4

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EPI Laboratory Certifications

Karen O'Beirn
Analytical Report Specialist



NPLWC 00196

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2040 Savage Road
Charleston, South Carolina 29414
P.O. Box 30712
Charleston, South Carolina 29417
(803) 556-8171

LOD

Page 1 of 1 9605298

CHAIN OF CUSTODY RECORD

Client Name/Facility Name <i>SPOERT ENV'DT CHASN</i>					SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods												Use F or P in the boxes to indicate whether sample was filtered and/or preserved						
#	SAMPLE ID	DATE	TIME	WELL SOIL COMP GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX/E ₁₀ X	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specific Method required SPECS/TESTS METALS - specify	Residue	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specific type	TPH	CCL	21430	Remarks
01	SPORT-0040-1	5/16/96	0638	XX	3			X			X									X	NBCE054S000700	.1 .3	
02	SPORT-0040-2	5/16/96	0653	XX	3			X			K									X	NBCE054S000800	.1 .3	
03	SPORT-0040-3	5/16/96	0727	XX	3			X			K									X	NBCE054-S000900	.1 .3	
04	SPORT-0040-4	5/16/96	0638	XX	3			X			K									X	NBCE054C000700	.1 .3	
05	SPORT-0040-5	5/16/96	0638	X4				X			X									X	NBCE054P000702	7 2	
06	SPORT-0040-6	5/16/96	0940	X4				X			K									X	NBCE054D000701		
																					METALS:		
																					1) RCRA METALS		
																					2) ANTIMONY - ICP		
																					3) BERYLLIUM - ICP		
																					4) NICKEL - ICP		
Relinquished by:				Date:	Time:	Received by:	Relinquished by:				Relinquished by:				Date:	Time:	Received by:						
<i>Dan Morse</i>				5/16/96	1130	<i>John S. M. Morse</i>	<i>John S. M. Morse</i>				<i>John S. M. Morse</i>				5/16/96	1530	<i>Paig Kinard</i>						
Relinquished by:				Date:	Time:	Received by lab by:	Date:	Time:	Remarks:														
<i>Paig Kinard</i>				5/16/96	1600	<i>Paig Kinard</i>	5/16/96	1600															

White = sample collector

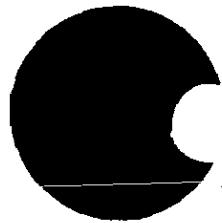
Yellow = file

Pink = with report



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 28, 1996

Page 1 of 3

Sample ID : SPORT-0049-1
Lab ID : 9605363-01
Matrix : Soil
Date Collected : 05/21/96
Date Received : 05/21/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury		0.394	0.00223	0.200	mg/kg	1.0	RMJ	05/23/96	2056	85021	
Silver	J	757	242	970	ug/kg	2.0	NRM	05/24/96	2205	85046	1
Arsenic		6340	180	970	ug/kg	2.0					
Barium		137000	6.43	970	ug/kg	2.0					
Beryllium		1950	1.11	485	ug/kg	2.0					
Cadmium		2040	9.41	485	ug/kg	2.0					
Chromium		88500	57.8	970	ug/kg	2.0					
Nickel		81100	78.3	970	ug/kg	2.0					
Lead		807000	110	485	ug/kg	2.0					
Antimony		11300	92.9	970	ug/kg	2.0					
Selenium	U	-522	139	485	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		240	10.0	50.0	mg/kg	1.0	SDW	05/23/96	1100	85043	2
Extractable Organic Halides		60.2	4.63	14.3	mg/kg	1.0	SJ	05/24/96	1202	85054	3

The following prep procedures were performed:

Mercury RMJ 05/22/96 1700 85021 4
TRACE DVW 05/23/96 2040 85046 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050



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Page 2 of 3

Sample ID : SPORT-0049-1

M = Method

Method-Description

Notes:

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J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

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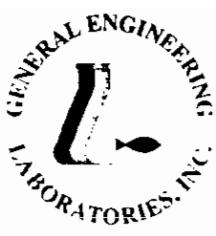
GEL Laboratory Certifications

AL - 41040 AZ - AZ0514
CA - 2089 CT - PH-0169
DE - SC012 FL - E87156/87294
ME - SC012 MS - 10120
NC - 233 NY - 11501
RI - 135 SC - 10120
TN - 02934 UT - E-251
VA - 00151 WA - C223
WI - 999887790

EPI Laboratory Certifications

AL - 41050 AZ - AZ0514
CA - I-1023/2056 CT - PH-0175
FL - E87472/87458 MS - 29417
NY - 11502 RI - 138
SC - 10582 TN - 02934
UT - E-227 VA - 00111
WA - C225 NJ - 79002
PA - 68-485 WV - 235





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Project Description: SUPSHIP-Portsmouth Detachment

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Sample ID

: SPORT-0049-1

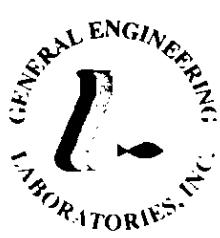
GEL Laboratory Certifications

EPI Laboratory Certifications

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Karen Blakeney
Analytical Report Specialist





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

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Report Date: May 30, 1996

Page 1 of 3

Sample ID	:	SPORT-0049-1
Lab ID	:	9605363-05
Matrix	:	TCLP
Date Collected	:	05/21/96
Date Received	:	05/21/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0296	0.00780	0.500	mg/l	1.0	JSS	05/28/96	1152	85145	
Arsenic	U	-0.110	0.0421	0.500	mg/l	1.0					
Barium	J	0.377	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0198	0.00330	0.100	mg/l	1.0					
Chromium	J	0.00650	0.00420	0.500	mg/l	1.0					
Lead	J	0.262	0.0364	0.500	mg/l	1.0					
Selenium	U	-0.198	0.0841	0.300	mg/l	1.0					
Mercury	J	0.000220	0.000148	0.0200	mg/l	1.0	RMJ	05/28/96	1137	85153	2

The following prep procedures were performed:

ICP	FGD	05/24/96	1500	85145	3
Mercury	RMJ	05/24/96	1245	85153	4
TCLP Prep for Metals	JL	05/22/96	1935	85019	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 300S
M 4	EPA 7470
M 5	EPA 1311





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Sample ID : SPORT-0049-1

M = Method

Method-Description

Notes:

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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

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AL - 41040
CA - 2089
DE - SC012
ME - SC012
NC - 233
RI - 135
TN - 02934
VA - 00151
WI - 999887790

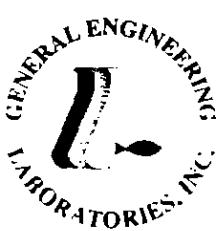
EPI Laboratory Certifications

AZ - AZ0514
CT - PH-0169
FL - E87156/87294
MS - 10120
NY - 11501
SC - 10120
UT - E-251
WA - C223
PA - 68-485

AL - 41050
CA - I-1023/2056
FL - E87472/87458
NY - 11502
SC - 10582
UT - E-227
WA - C225
PA - 68-485

AZ - AZ0514
CT - PH-0175
MS - 29417
RI - 138
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NJ - 79002
WV - 235





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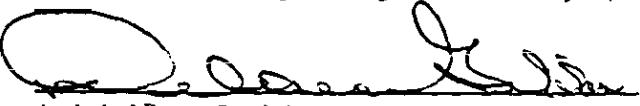
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Sample ID : SPORT-0049-1

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Sample ID	: SPORT-0049-2
Lab ID	: 9605363-02
Matrix	: Soil
Date Collected	: 05/21/96
Date Received	: 05/21/96
Priority	: Routine
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury		0.453	0.00218	0.200	mg/kg	1.0	RMJ	05/23/96	2059	85021	1
Silver	J	391	247	990	ug/kg	2.0	NRM	05/24/96	2209	85046	1
Arsenic		3460	184	990	ug/kg	2.0					
Barium		77500	6.56	990	ug/kg	2.0					
Beryllium		742	1.13	495	ug/kg	2.0					
Cadmium		2290	9.60	495	ug/kg	2.0					
Chromium		55200	59.0	990	ug/kg	2.0					
Nickel		86100	79.9	990	ug/kg	2.0					
Lead		444000	112	495	ug/kg	2.0					
Antimony		6920	94.8	990	ug/kg	2.0					
Selenium	U	.215	142	495	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		190	10.0	50.0	mg/kg	1.0	SDW	05/23/96	1100	85043	2
Extractable Organic Halides		2140	23.9	74.0	mg/kg	5.0	SJ	05/24/96	1454	85054	3

The following prep procedures were performed:

Mercury	RMJ	05/22/96	1700	85021	4
TRACE	DVW	05/23/96	2040	85046	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050



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Project Description: SUPSHIP-Portsmouth Detachment

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Sample ID : SPORT-0049-2

M = Method

Method-Description

Notes:

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GEL Laboratory Certifications

EPI Laboratory Certifications

AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			





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Project Description: SUPSHIP-Portsmouth Detachment

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Sample ID : SPORT-0049-2

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EPI Laboratory Certifications

Karen Blakeney
Analytical Report Specialist





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

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Sample ID : SPORT-0049-2
Lab ID : 9605363-06
Matrix : TCLP
Date Collected : 05/21/96
Date Received : 05/21/96
Priority : Routine
Collector : Client

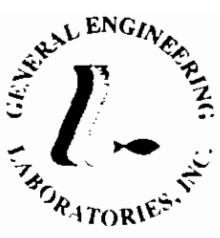
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0293	0.00780	0.500	mg/l	1.0	JSS	05/28/96	1154	85145	
Arsenic	U	-0.127	0.0421	0.500	mg/l	1.0					
Barium	J	0.391	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0213	0.00330	0.100	mg/l	1.0					
Chromium	J	0.00547	0.00420	0.500	mg/l	1.0					
Lead	J	0.0741	0.0364	0.500	mg/l	1.0					
Selenium	U	-0.0162	0.0841	0.300	mg/l	1.0					
Mercury	J	0.00173	0.000148	0.0200	mg/l	1.0	RMJ	05/28/96	1139	85153	2

The following prep procedures were performed:

ICP	FCD	05/24/96	1500	85145	3
Mercury	RMJ	05/24/96	1245	85153	4
TCLP Prep for Metals	JL	05/22/96	1935	85019	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 2 of 3

Sample ID : SPORT-0049-2

M = Method

Method-Description

Notes:

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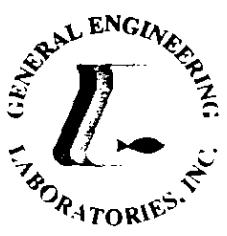
GEL Laboratory Certifications

AL - 41040 AZ - AZ0514
CA - 2089 CT - PH-0169
DE - SC012 FL - E87156/87294
ME - SC012 MS - 10120
NC - 233 NY - 11501
RI - 135 SC - 10120
TN - 02934 UT - E-251
VA - 00151 WA - C223
WI - 999887790

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FL - E87472/87458 MS - 29417
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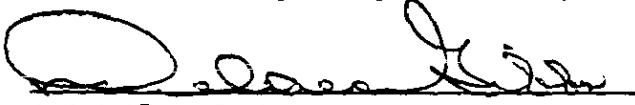
Page 3 of 3

Sample ID : SPORT-0049-2

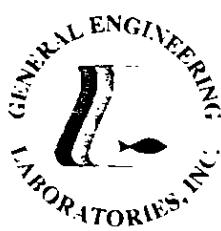
GEL Laboratory Certifications

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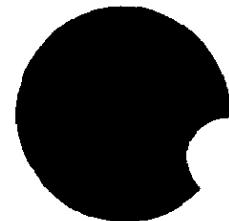

Analytical Report Specialist





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Report Date: July 17, 1996

Page 1 of 4

Sample ID	:	9605363-02-R SPORT0049-2
Lab ID	:	9607119-01
Matrix	:	TCLP
Date Collected	:	05/21/96
Date Received	:	05/21/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>TCLP Volatile Compounds - 11 items</i>											
1,1-Dichloroethylene	U	0.00		10.0	ug/l	10.	RMB	07/15/96	2246	87234	
1,2-Dichloroethane	U	0.00		10.0	ug/l	10.					
1,4-Dichlorobenzene	U	4.10		10.0	ug/l	10.					
2-Butanone	U	0.00		20.0	ug/l	10.					
Benzene	U	0.00		10.0	ug/l	10.					
Carbon Tetrachloride	U	0.00		10.0	ug/l	10.					
Chlorobenzene	U	0.00		10.0	ug/l	10.					
Chloroform	U	0.00		10.0	ug/l	10.					
Tetrachloroethylene	U	0.00		10.0	ug/l	10.					
Trichloroethylene	U	0.00		10.0	ug/l	10.					
Vinyl chloride	U	0.00		10.0	ug/l	10.					
Extractable Organics											
<i>TCLP Acid Compounds - 5 items</i>											
2,4,5-Trichlorophenol	U	0.00		0.0500	mg/l	10.	BDG	07/12/96	2021	87130	2
2,4,6-Trichlorophenol	U	0.00		0.0500	mg/l	10.					
Pentachlorophenol	U	0.00		0.0500	mg/l	10.					
m,p-Cresol	U	0.00		0.0113	mg/l	10.					
o-Cresol	U	0.00		0.0500	mg/l	10.					
<i>TCLP Base/Neutral Compounds - 6 items</i>											
2,4-Dinitrotoluene	U	0.00		0.0500	mg/l	10.					
Hexachlorobenzene	U	0.00		0.0500	mg/l	10.					
Hexachlorobutadiene	U	0.00		0.0500	mg/l	10.					
Hexachloroethane	U	0.00		0.0500	mg/l	10.					
Nitrobenzene	U	0.00		0.0500	mg/l	10.					
Pyridine	U	0.00		0.0500	mg/l	10.					



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Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 17, 1996

Page 2 of 4

Sample ID : 9605363-02-R SPORT0049-2

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
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The following prep procedures were performed:

GC/MS Acid Compounds	TSD	07/11/96	1230	87130	3
GC/MS Base/Neutral Compounds	TSD	07/11/96	1230	87130	3
TCLP Extraction - Semivolatiles	JL	07/09/96	1405	87006	4
TCLP Extraction - Volatiles	JL	07/10/96	2045	86948	4

Comments:

This sample was analyzed beyond the recommended holding time for Volatile Organics and Extractable Organics.

There was not an unopened container available for Volatile Organic analysis.

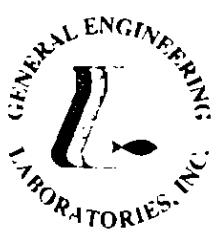
Surrogate Recovery	Test	Percent %	Acceptable Limits
2,4,6-Tribromophenol	TCLP ACID	74.1	(26.9 - 123.)
2-Fluorophenol	TCLP ACID	58.4	(21.0 - 100.)
Phenol-d6	TCLP ACID	48.3	(18.9 - 94.0)
2-Fluorobiphenyl	TCLP B/N	85.4	(43.0 - 108.)
Nitrobenzene-d5	TCLP B/N	95.2	(35.0 - 111.)
p-Terphenyl-d14	TCLP B/N	69.2	(33.0 - 125.)
Bromofluorobenzene	TCLP VOA-8260	92.8	(80.0 - 128.)
Dibromofluoromethane	TCLP VOA-8260	91.2	(67.7 - 135.)
Toluene-d8	TCLP VOA-8260	93.2	(76.8 - 122.)

M = Method

Method-Description

M 1	EPA 8260
M 2	EPA 8270
M 3	EPA 3510
M 4	EPA 1311





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Page 3 of 4

Sample ID : 9605363-02-R SPORT0049-2

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Method-Description

Notes:

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WA - C223

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SC - 10582
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WA - C225
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RI - 138
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NJ - 79002
WV - 235





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Report Date: July 17, 1996

Page 4 of 4

Sample ID : 9605363-02-R SPORT0049-2

GEL Laboratory Certifications**EPI Laboratory Certifications**

This data report has been prepared and reviewed
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Jennifer F. Greene
Analytical Report Specialist

QC Summary Report

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196 Lab. Sample ID: 9607119-01 Report Date: July 18, 1996 Page 1 of 5

Sample/Parameter	Type	Batch	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Analyst	Date	Time
Volatile Organics													
QC371507	BLANK	87234											
1,1-Dichloroethylene						0.00	ug/l						RMB 07/15/96 1052
Benzene						0.00	ug/l						
Chlorobenzene						0.00	ug/l						
Trichloroethylene						0.00	ug/l						
*Bromofluorobenzene		25				23.2	ug/l	92.8		(80.0 - 128.)			
*Dibromofluoromethane		25				26.6	ug/l	106		(67.7 - 135.)			
*Toluene-d8		25				24.0	ug/l	96.0		(76.8 - 122.)			
1,2-Dichloroethane						0.00	ug/l						
1,4-Dichlorobenzene						0.440	ug/l						
2-Butanone						0.00	ug/l						
Carbon Tetrachloride						0.00	ug/l						
Chloroform						0.00	ug/l						
Tetrachloroethylene						0.00	ug/l						
Vinyl chloride						0.00	ug/l						
QC371514	BLANK	87234											RMB 07/15/96 1634
1,1-Dichloroethylene						0.00	ug/l						
Benzene						0.00	ug/l						
Chlorobenzene						0.00	ug/l						
Trichloroethylene						0.00	ug/l						
*Bromofluorobenzene		25				22.0	ug/l	88.0		(80.0 - 128.)			
*Dibromofluoromethane		25				24.3	ug/l	97.2		(67.7 - 135.)			
*Toluene-d8		25				25.1	ug/l	100		(76.8 - 122.)			
1,2-Dichloroethane						0.00	ug/l						
1,4-Dichlorobenzene						2.70	ug/l						
2-Butanone						428	ug/l						
Carbon Tetrachloride						0.00	ug/l						
Chloroform						0.00	ug/l						
Tetrachloroethylene						0.00	ug/l						
Vinyl chloride						0.00	ug/l						
QC371515	LCS	87234											RMB 07/15/96 0952
1,1-Dichloroethylene		20				21.4	ug/l	107		(71.1 - 124.)			
Benzene		20				22.2	ug/l	111		(72.2 - 123.)			
Chlorobenzene		20				20.6	ug/l	103		(75.6 - 125.)			
Toluene		20				18.7	ug/l	93.5		(73.6 - 127.)			
Trichloroethylene		20				24.5	ug/l	123**		(78.6 - 120.)			
*Bromofluorobenzene		25				22.2	ug/l	88.8		(80.0 - 128.)			
*Dibromofluoromethane		25				26.7	ug/l	107		(67.7 - 135.)			
*Toluene-d8		25				22.3	ug/l	89.2		(76.8 - 122.)			

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QC Summary Report

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Lab. Sample ID: 9607119-01

Report Date: July 18, 1996

Page 2 of 5

Sample/Parameter	Type	Batch	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Analyst	Date	Time
QC371516	LCS DUP	87234											
1,1-Dichloroethylene			20			21.5	ug/l	0.466	108	(0.00 - 18.4)	RMB	07/15/96	1522
Benzene			20			22.8	ug/l	2.67	114	(0.00 - 27.7)			
Chlorobenzene			20			21.1	ug/l	2.40	106	(0.00 - 17.6)			
Toluene			20			20.9	ug/l	11.1	105	(0.00 - 18.5)			
Trichloroethylene			20			22.5	ug/l	8.51	113	(0.00 - 25.0)			
*Bromofluorobenzene			25			23.1	ug/l		92.4	(80.0 - 128.)			
*Dibromofluoromethane			25			24.8	ug/l		99.2	(67.7 - 135.)			
*Toluene-d8			25			24.6	ug/l		98.4	(76.8 - 122.)			
QC371510	9607119-01TS	87234											
1,1-Dichloroethylene			20	0.00		202	ug/l		101				
Benzene			20	0.00		214	ug/l		107				
*Bromofluorobenzene			25			23.0	ug/l		92.0	(80.0 - 128.)			
*Dibromofluoromethane			25			26.7	ug/l		107	(67.7 - 135.)			
*Toluene-d8			25			23.5	ug/l		94.0	(76.8 - 122.)			
1,2-Dichloroethane			20	0.00		210	ug/l		105				
1,4-Dichlorobenzene			20	4.10		171	ug/l		85.5				
2-Butanone			20	0.00		123	ug/l		61.5				
Carbon Tetrachloride			20	0.00		221	ug/l		111				
Chloroform			20	0.00		209	ug/l		105				
Tetrachloroethylene			20	0.00		184	ug/l		92.0				
Vinyl chloride			20	0.00		268	ug/l		134				

* represent a surrogate.



QC Summary Report

Project Description: SUPSHIP-Portsmouth Detachment

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Lab. Sample ID: 9607119-01

Report Date: July 18, 1996

Page 3 of 5

Sample/Parameter	Type	Batch	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Analyst	Date	Time
Extractable Organics													
QC371030	BLANK	87130											
2,4,5-Trichlorophenol						0.00	mg/l						
2,4,6-Trichlorophenol						0.00	mg/l						
2,4-Dinitrotoluene						0.00	mg/l						
Hexachlorobenzene						0.00	mg/l						
Hexachlorobutadiene						0.00	mg/l						
Hexachloroethane						0.00	mg/l						
Nitrobenzene						0.00	mg/l						
Pentachlorophenol						0.00	mg/l						
Pyridine						0.00	mg/l						
m,p-Cresol						0.00	mg/l						
o-Cresol						0.00	mg/l						
*2,4,6-Tribromophenol				1		0.933	mg/l		93.3	(26.9 - 123.)			
*2-Fluorobiphenyl				0.5		0.417	mg/l		83.4	(43.0 - 108.)			
*2-Fluorophenol				1		0.550	mg/l		55.0	(21.0 - 100.)			
*Nitrobenzene-d5				0.5		0.449	mg/l		89.8	(35.0 - 111.)			
*Phenol-d6				1		0.454	mg/l		45.4	(18.9 - 94.0)			
*p-Terphenyl-d14				0.5		0.348	mg/l		69.6	(33.0 - 125.)			
QC371031	BLANK	87130											
2,4,5-Trichlorophenol						0.00	mg/l						
2,4,6-Trichlorophenol						0.00	mg/l						
2,4-Dinitrotoluene						0.00	mg/l						
Hexachlorobenzene						0.00	mg/l						
Hexachlorobutadiene						0.00	mg/l						
Hexachloroethane						0.00	mg/l						
Nitrobenzene						0.00	mg/l						
Pentachlorophenol						0.00	mg/l						
Pyridine						0.00	mg/l						
m,p-Cresol						0.00	mg/l						
o-Cresol						0.00	mg/l						
*2,4,6-Tribromophenol				1		0.919	mg/l		91.9	(26.9 - 123.)			
*2-Fluorobiphenyl				0.5		0.495	mg/l		99.0	(43.0 - 108.)			
*2-Fluorophenol				1		0.726	mg/l		72.6	(21.0 - 100.)			
*Nitrobenzene-d5				0.5		0.542	mg/l		108	(35.0 - 111.)			
*Phenol-d6				1		0.578	mg/l		57.8	(18.9 - 94.0)			
*p-Terphenyl-d14				0.5		0.378	mg/l		75.6	(33.0 - 125.)			
QC371032	LCS	87130											
1,4-Dichlorobenzene				1		0.732	mg/l		73.2	(30.7 - 115.)	BDG	07/12/96	
2,4,5-Trichlorophenol				1		0.820	mg/l		82.0	(34.7 - 123.)			

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QC Summary Report

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Lab. Sample ID: 9607119-01

Report Date: July 18, 1996

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Sample/Parameter	Type	Batch	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Analyst	Date	Time
2,4,6-Trichlorophenol			1			0.822	mg/l		82.2	(43.0 - 114.)	BDG	07/12/96	1206
2,4-Dinitrotoluene			1			0.851	mg/l		85.1	(27.3 - 158.)			
Hexachlorobenzene			1			0.917	mg/l		91.7	(14.1 - 153.)			
Hexachlorobutadiene			1			0.825	mg/l		82.5	(29.5 - 109.)			
Hexachloroethane			1			0.665	mg/l		66.5	(27.6 - 116.)			
Nitrobenzene			1			0.897	mg/l		89.7	(40.6 - 118.)			
Pentachlorophenol			1			0.903	mg/l		90.3	(39.2 - 128.)			
Pyridine			1			0.769	mg/l		76.9	(20.8 - 125.)			
m,p-Cresol			1			0.769	mg/l		76.9	(29.9 - 125.)			
o-Cresol			1			0.821	mg/l		82.1	(40.5 - 114.)			
*2,4,6-Tribromophenol			1			0.897	mg/l		89.7	(26.9 - 123.)			
*2-Fluorobiphenyl			0.5			0.410	mg/l		82.0	(43.0 - 108.)			
*2-Fluorophenol			1			0.614	mg/l		61.4	(21.0 - 100.)			
*Nitrobenzene-d5			0.5			0.465	mg/l		93.0	(35.0 - 111.)			
*Phenol-d6			1			0.511	mg/l		51.1	(18.9 - 94.0)			
*p-Terphenyl-d14			0.5			0.336	mg/l		67.2	(33.0 - 125.)			
QC371033	LCS DUP	87130											
1,4-Dichlorobenzene			1			0.762	mg/l	4.02	76.2	(0.00 - 24.3)	BDG	07/12/96	1240
2,4,5-Trichlorophenol			1			0.840	mg/l	2.41	84.0	(0.00 - 24.3)			
2,4,6-Trichlorophenol			1			0.832	mg/l	1.21	83.2	(0.00 - 24.0)			
2,4-Dinitrotoluene			1			0.896	mg/l	5.15	89.6	(0.00 - 23.5)			
Hexachlorobenzene			1			0.861	mg/l	6.30	86.1	(0.00 - 30.6)			
Hexachlorobutadiene			1			0.840	mg/l	1.80	84.0	(0.00 - 24.1)			
Hexachloroethane			1			0.686	mg/l	3.11	68.6	(0.00 - 28.6)			
Nitrobenzene			1			0.914	mg/l	1.88	91.4	(0.00 - 29.7)			
Pentachlorophenol			1			0.896	mg/l	0.778	89.6	(0.00 - 29.3)			
Pyridine			1			0.386	mg/l	66.3**	38.6	(0.00 - 41.1)			
m,p-Cresol			1			0.763	mg/l	0.783	76.3	(0.00 - 23.8)			
o-Cresol			1			0.840	mg/l	2.29	84.0	(0.00 - 24.1)			
*2,4,6-Tribromophenol			1			0.886	mg/l		88.6	(26.9 - 123.)			
*2-Fluorobiphenyl			0.5			0.428	mg/l		85.6	(43.0 - 108.)			
*2-Fluorophenol			1			0.627	mg/l		62.7	(21.0 - 100.)			
*Nitrobenzene-d5			0.5			0.488	mg/l		97.6	(35.0 - 111.)			
*Phenol-d6			1			0.540	mg/l		54.0	(18.9 - 94.0)			
*p-Terphenyl-d14			0.5			0.340	mg/l		68.0	(33.0 - 125.)			
QC371036	9607119-01MS	87130											
1,4-Dichlorobenzene			1		0.00	0.781	mg/l		78.1		BDG	07/12/96	2054
2,4,5-Trichlorophenol			1		0.00	0.876	mg/l		87.6				
2,4,6-Trichlorophenol			1		0.00	0.856	mg/l		85.6				
2,4-Dinitrotoluene			1		0.00	0.921	mg/l		92.1				

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QC Summary Report

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Lab. Sample ID: 9607119-01

Report Date: July 18, 1996

Page 5 of 5

Sample/Parameter	Type	Batch	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Analyst	Date	Time
Hexachlorobenzene			1	0.00		0.791	mg/l		79.1			BDG	07/12/96 2054
Hexachlorobutadiene			1	0.00		0.855	mg/l		85.5				
Hexachloroethane			1	0.00		0.716	mg/l		71.6				
Nitrobenzene			1	0.00		1.03	mg/l		103				
Pentachlorophenol			1	0.00		0.892	mg/l		89.2				
Pyridine			1	0.00		0.846	mg/l		84.6				
m,p-Cresol			1	0.00		0.798	mg/l		79.8				
o-Cresol			1	0.00		0.896	mg/l		89.6				
*2,4,6-Tribromophenol			1			0.773	mg/l		77.3	(26.9 - 123.)			
*2-Fluorobiphenyl			0.5			0.400	mg/l		80.0	(43.0 - 108.)			
*2-Fluorophenol			1			0.700	mg/l		70.0	(21.0 - 100.)			
*Nitrobenzene-d5			0.5			0.532	mg/l		106	(35.0 - 111.)			
*Phenol-d6			1			0.603	mg/l		60.3	(18.9 - 94.0)			
*p-Terphenyl-d14			0.5			0.359	mg/l		71.8	(33.0 - 125.)			

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte < RL (Report Limit)

U indicates presence of analyte < DL (Detect Limit)

n/a indicates that spike recovery limits do not apply when
sample concentration exceeds spike conc by a factor of 4 or more

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NP17C 00196

CHAIN OF CUSTODY RECORD

Page 1 of 1 9607119

SPORT-0096

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Charleston, South Carolina 29417
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Relinquished by:

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Received by

Relinquished by:

Date

Time

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Page 4 | Page

1

1

1

White • sample collector

Yellow • file

Pink • with report



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CERTIFICATE OF ANALYSIS

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 28, 1996

Page 1 of 3

Sample ID	:	SPORT-0049-3
Lab ID	:	9605363-03
Matrix	:	Soil
Date Collected	:	05/21/96
Date Received	:	05/21/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury		0.333	0.00229	0.200	mg/kg	1.0	RMJ	05/23/96	2101	85021	1
Silver	J	395	237	952	ug/kg	2.0	NRM	05/24/96	2214	85046	1
Arsenic		5980	177	952	ug/kg	2.0					
Barium		147000	6.31	952	ug/kg	2.0					
Beryllium		1740	1.09	476	ug/kg	2.0					
Cadmium		3000	9.23	476	ug/kg	2.0					
Chromium		90800	56.7	952	ug/kg	2.0					
Nickel		183000	76.8	952	ug/kg	2.0					
Lead		547000	108	476	ug/kg	2.0					
Antimony		4400	91.2	952	ug/kg	2.0					
Selenium	U	-833	136	476	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		190	10.0	50.0	mg/kg	1.0	SDW	05/23/96	1100	85043	2
Extractable Organic Halides		216	4.64	14.4	mg/kg	1.0	SJ	05/24/96	1312	85054	3

The following prep procedures were performed:

Mercury RMJ 05/22/96 1700 85021 4
TRACE DVW 05/23/96 2040 85046 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050



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Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 28, 1996

Page 2 of 3

Sample ID : SPORT-0049-3

M = Method

Method-Description

Notes:

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J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications

AL - 41040
CA - 2089
DE - SC012
ME - SC012
NC - 233
RI - 135
TN - 02934
VA - 00151
WI - 999887790

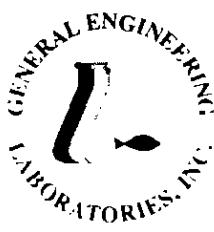
EPI Laboratory Certifications

AZ - AZ0514
CT - PH-0169
FL - E87156/87294
MS - 10120
NY - 11501
SC - 10120
UT - E-251
WA - C223

AL - 41050
CA - I-1023/2056
FL - E87472/87458
NY - 11502
SC - 10582
UT - E-227
WA - C225
PA - 68-485

AZ - AZ0514
CT - PH-0175
MS - 29417
RI - 138
TN - 02934
VA - 00111
NJ - 79002
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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 28, 1996

Page 3 of 3

Sample ID : SPORT-0049-3

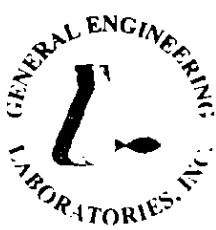
GEL Laboratory Certifications

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EPI Laboratory Certifications

Karen Blakeney
Analytical Report Specialist





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North Charleston, South Carolina 29405-2106
Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 1 of 3

Sample ID	:	SPORT-0049-3
Lab ID	:	9605363-07
Matrix	:	TCLP
Date Collected	:	05/21/96
Date Received	:	05/21/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0304	0.00780	0.500	mg/l	1.0	JSS	05/28/96	1156	85145	
Arsenic	U	-0.141	0.0421	0.500	mg/l	1.0					
Barium	J	0.584	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0172	0.00330	0.100	mg/l	1.0					
Chromium	J	0.00757	0.00420	0.500	mg/l	1.0					
Lead	J	0.0706	0.0364	0.500	mg/l	1.0					
Selenium	U	0.0583	0.0841	0.300	mg/l	1.0					
Mercury	U	0.000140	0.000148	0.0200	mg/l	1.0	RMJ	05/28/96	1142	85153	2

The following prep procedures were performed:

ICP	FGD	05/24/96	1500	85145	3
Mercury	RMJ	05/24/96	1245	85153	4
TCLP Prep for Metals	JL	05/22/96	1935	85019	5

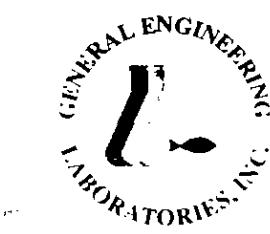
M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 2 of 3

Sample ID : SPORT-0049-3

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

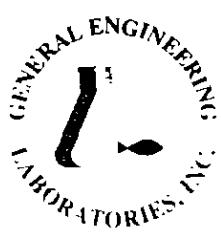
GEL Laboratory Certifications

AL - 41040 AZ - AZ0514
CA - 2089 CT - PH-0169
DE - SC012 FL - E87156/87294
ME - SC012 MS - 10120
NC - 233 NY - 11501
RI - 135 SC - 10120
TN - 02934 UT - E-251
VA - 00151 WA - C223
WI - 999887790

EPI Laboratory Certifications

AL - 41050 AZ - AZ0514
CA - I-1023/2056 CT - PH-0175
FL - E87472/87458 MS - 29417
NY - 11502 RI - 138
SC - 10582 TN - 02934
UT - E-227 VA - 00111
WA - C225 NJ - 79002
PA - 68-485 WV - 235





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 3 of 3

Sample ID : SPORT-0049-3

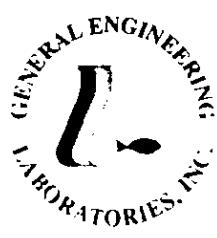
GEL Laboratory Certifications

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Analytical Report Specialist





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Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 29, 1996

Page 1 of 3

Sample ID : SPORT-0049-4
Lab ID : 9605363-04
Matrix : Soil
Date Collected : 05/21/96
Date Received : 05/21/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury	J	0.114	0.00235	0.200	mg/kg	1.0	RMJ	05/23/96	2104	85021	1
Silver	U	106	237	952	ug/kg	2.0	NRM	05/24/96	2218	85046	1
Arsenic		2390	177	952	ug/kg	2.0					
Barium		46100	6.31	952	ug/kg	2.0					
Beryllium		752	1.09	476	ug/kg	2.0					
Cadmium		851	9.23	476	ug/kg	2.0					
Chromium		38400	56.7	952	ug/kg	2.0					
Nickel		49500	76.8	952	ug/kg	2.0					
Lead		178000	108	476	ug/kg	2.0					
Antimony		2310	91.2	952	ug/kg	2.0					
Selenium	U	-179	136	476	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		400	10.0	50.0	mg/kg	1.0	SDW	05/28/96	1000	85190	2
Extractable Organic Halides	U	-0.908	4.63	14.3	mg/kg	1.0	SJ	05/24/96	1344	85054	3

The following prep procedures were performed:

Mercury
TRACE

RMJ 05/22/96 1700 85021 4
DVW 05/23/96 2040 85046 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 29, 1996

Page 2 of 3

Sample ID : SPORT-0049-4

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

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GEL Laboratory Certifications

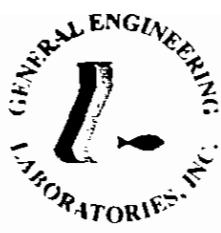
AL - 41040
CA - 2089
DE - SC012
ME - SC012
NC - 233
RI - 135
TN - 02934
VA - 00151
WI - 999887790

EPI Laboratory Certifications

AZ - AZ0514
CT - PH-0169
FL - E87156/87294
MS - 10120
NY - 11501
SC - 10582
UT - E-227
WA - C225
WA - C223
PA - 68-485

AZ - AZ0514
CT - PH-0175
MS - 29417
RI - 138
TN - 02934
VA - 00111
NJ - 79002
WV - 235





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 29, 1996

Page 3 of 3

Sample ID : SPORT-0049-4

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Karen Blakeney
Analytical Report Specialist



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 1 of 3

Sample ID	:	SPORT-0049-4
Lab ID	:	9605363-08
Matrix	:	TCLP
Date Collected	:	05/21/96
Date Received	:	05/21/96
Priority	:	Routine
Collector	:	Client

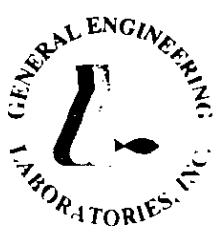
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0783	0.00780	0.500	mg/l	1.0	JSS	05/28/96	1157	85145	
Arsenic	U	-0.159	0.0421	0.500	mg/l	1.0					
Barium	J	0.390	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.00783	0.00330	0.100	mg/l	1.0					
Chromium	J	0.0157	0.00420	0.500	mg/l	1.0					
Lead	J	0.0698	0.0364	0.500	mg/l	1.0					
Selenium	J	0.105	0.0841	0.300	mg/l	1.0					
Mercury	J	0.000380	0.000148	0.0200	mg/l	1.0	RMJ	05/28/96	1144	85153	2

The following prep procedures were performed:

ICP	FGD	05/24/96	1500	85145	3
Mercury	RMJ	05/24/96	1245	85153	4
TCLP Prep for Metals	JL	05/22/96	1935	85019	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 300S
M 4	EPA 7470
M 5	EPA 1311





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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 2 of 3

Sample ID : SPORT-0049-4

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

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AL - 41040 AZ - AZ0514
CA - 2089 CT - PH-0169
DE - SC012 FL - E87156/87294
ME - SC012 MS - 10120
NC - 233 NY - 11501
RI - 135 SC - 10120
TN - 02934 UT - E-251
VA - 00151 WA - C223
WI - 999887790

EPI Laboratory Certifications

AL - 41050 AZ - AZ0514
CA - I-1023/2056 CT - PH-0175
FL - E87472/87458 MS - 29417
NY - 11502 RI - 138
SC - 10582 TN - 02934
UT - E-227 VA - 00111
WA - C225 NJ - 79002
PA - 68-485 WV - 235



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 30, 1996

Page 3 of 3

Sample ID : SPORT-0049-4

GEL Laboratory Certifications

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Analytical Report Specialist



N DC 00196

3B

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 2040 Savage Road
 Charleston, South Carolina 29414
 P.O. Box 30712
 Charleston, South Carolina 29417
 (803) 556-8171

Page 1 of 1 9605363

CHAIN OF CUSTODY RECORD

SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	SAMPLE ANALYSIS REQUIRED (x) use remarks area to specify specific compounds or methods												Remarks
								PH conductivity	TOC/DOC	TOX/EDX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - specify Method required <small>SEE METALS - specify</small>	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	
-01	S 24/96	0704	X X				3	X			X					X	N8CE054-S 001000	.1 .2		
-02	S 21/96	0722	X X				3	X			X					X	N8CE05A-S 001100	.1 .2		
-03	S 21/96	0801	X X				3	X			X					X	N8CE05A-S 001200	.1 .2		
-04	S 21/96	0817	X X				3	X			X					X	N8CE05A-S 001300	.1 .2		
Relinquished by:	Date:	Time:	Received by:					Relinquished by:	Date:	Time:	Received by:									
Dan R. Morse	S 21/96	1109	Jed S. Moran					J. D. S. Moran	S 21/96	1415	J. A. E.									
Relinquished by:	Date:	Time:	Recovered by lab by:					Date:	Time:	Remarks:										
Michael Patrick	S 21/96	1502	Dennard					5-21-96	1530											

Use L or P in the boxes to indicate whether sample was filtered and/or preserved

CCL 21500

Remarks

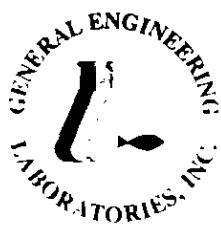
METALS:

1) RCRA METALS

2) ANTIMONY - ICP

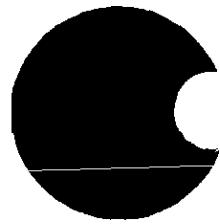
3) CERIYLLIUM - ICP

4) NICKEL - ICP



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 03, 1996

Page 1 of 3

Sample ID	:	SPORT-0058-1
Lab ID	:	9605450-01
Matrix	:	Soil
Date Collected	:	05/24/96
Date Received	:	05/24/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury		0.423	0.00192	0.200	mg/kg	1.0	RMJ	05/30/96	1341	85235	1
Silver	J	351	233	934	ug/kg	2.0	NRM	05/31/96	1440	85273	1
Arsenic		5580	174	934	ug/kg	2.0					
Barium		84800	6.19	934	ug/kg	2.0					
Beryllium		1250	1.06	467	ug/kg	2.0					
Cadmium	J	63.7	9.06	467	ug/kg	2.0					
Chromium		58900	55.7	934	ug/kg	2.0					
Nickel		44400	75.4	934	ug/kg	2.0					
Lead		523000	106	467	ug/kg	2.0					
Antimony		4630	89.5	934	ug/kg	2.0					
Selenium	J	269	134	467	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		380	10.0	50.0	mg/kg	1.0	SDW	05/28/96	1000	85190	2
Extractable Organic Halides		71.9	4.84	15.0	mg/kg	1.0	SJ	05/31/96	1104	85340	3

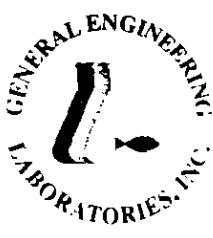
The following prep procedures were performed:

Mercury RMJ 05/29/96 1800 85235 4
TRACE DVW 05/29/96 1840 85273 5

Comments:

A dilution was required for Metals due to matrix interference. As a result the detection limits are elevated.





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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 03, 1996

Page 2 of 3

Sample ID : SPORT-0058-1

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050

Notes:

The qualifiers in this report are defined as follows:

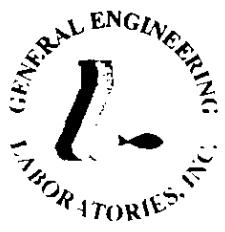
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 1I501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 03, 1996

Page 3 of 3

Sample ID : SPORT-0058-1

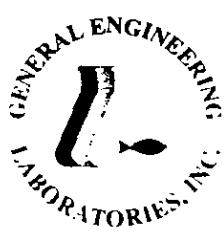
GEL Laboratory Certifications

EPI Laboratory Certifications

WI - 999887790

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in accordance with General Engineering Laboratories
standard operating procedures. Please direct
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Analytical Report Specialist



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1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106
Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 31, 1996

Page 1 of 3

Sample ID	:	SPORT-0058-1
Lab ID	:	9605450-06
Matrix	:	TCLP
Date Collected	:	05/24/96
Date Received	:	05/24/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0235	0.00780	0.500	mg/l	1.0	JSS	05/30/96	1500	85321	
Arsenic	U	-0.127	0.0421	0.500	mg/l	1.0					
Barium	J	0.411	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0112	0.00330	0.100	mg/l	1.0					
Chromium	J	0.0130	0.00420	0.500	mg/l	1.0					
Lead	J	0.341	0.0364	0.500	mg/l	1.0					
Selenium	J	0.150	0.0841	0.300	mg/l	1.0					
Mercury	U	-0.0000200	0.000148	0.0200	mg/l	1.0	RMJ	05/30/96	1708	85352	2

The following prep procedures were performed:

ICP	DVW	05/29/96	1830	85321	3
Mercury	RMJ	05/30/96	1230	85352	4
TCLP Prep for Metals	JL	05/28/96	1510	85203	5

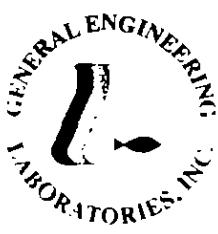
M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 31, 1996

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Sample ID : SPORT-0058-1

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications

AL - 41040 AZ - AZ0514
CA - 2089 CT - PH-0169
DE - SC012 FL - E87156/87294
ME - SC012 MS - 10120
NC - 233 NY - 11501
RI - 135 SC - 10120
TN - 02934 UT - E-251
VA - 00151 WA - C223
WI - 999887790

EPI Laboratory Certifications

AL - 41050 AZ - AZ0514
CA - I-1023/2056 CT - PH-0175
FL - E87472/87458 MS - 29417
NY - 11502 RI - 138
SC - 10582 TN - 02934
UT - E-227 VA - 00111
WA - C225 NJ - 79002
PA - 68-485 WV - 235





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 31, 1996

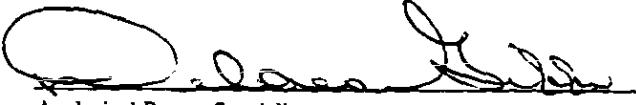
Page 3 of 3

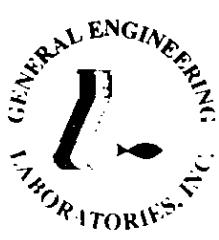
Sample ID : SPORT-0058-1

GEL Laboratory Certifications

EPI Laboratory Certifications

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North Charleston, South Carolina 29405-2106
Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

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Report Date: June 03, 1996

Page 1 of 3

Sample ID : SPORT-0058-2
Lab ID : 9605450-02
Matrix : Soil
Date Collected : 05/24/96
Date Received : 05/24/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury	J	0.151	0.00241	0.200	mg/kg	1.0	RMJ	05/30/96	1344	85235	I
Silver	U	154	237	952	ug/kg	2.0	NRM	05/31/96	1445	85273	1
Arsenic		4720	177	952	ug/kg	2.0					
Barium		56600	6.31	952	ug/kg	2.0					
Beryllium		689	1.09	476	ug/kg	2.0					
Cadmium	U	-341	9.23	476	ug/kg	2.0					
Chromium		46400	56.7	952	ug/kg	2.0					
Nickel		37300	76.8	952	ug/kg	2.0					
Lead		204000	108	476	ug/kg	2.0					
Antimony		2280	91.2	952	ug/kg	2.0					
Selenium	U	59.2	136	476	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		430	10.0	50.0	mg/kg	1.0	SDW	05/28/96	1000	85190	2
Extractable Organic Halides		38.9	4.46	13.8	mg/kg	1.0	SJ	05/31/96	1117	85340	3

The following prep procedures were performed:

Mercury RMJ 05/29/96 1800 85235 4
TRACE DVW 05/29/96 1840 85273 5

Comments:

A dilution was required for Metals due to matrix interference. As a result
the detection limits are elevated.





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachmen

cc: NPWC00196

Report Date: June 03, 1996

Page 2 of 3

Sample ID : SPORT-0058-2

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050

Notes:

The qualifiers in this report are defined as follows:

L indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications

AL - 41040 AZ - AZ0514
CA - 2089 CT - PH-0169
DE - SC012 FL - E87156/87294
ME - SC012 MS - 10120
NC - 233 NY - 11501
RI - 135 SC - 10120
TN - 02934 UT - E-227
VA - 00151 WA - C225

EPI Laboratory Certifications

AL - 41050 AZ - AZ0514
CA - I-1023/2056 CT - PH-0175
FL - E87472/87458 MS - 29417
NY - 11502 RI - 138
SC - 10582 TN - 02934
UT - E-227 VA - 00111
WA - C225 NJ - 79002
PA - 68-485 WV - 235





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

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Report Date: June 03, 1996

Page 3 of 3

Sample ID : SPORT-0058-2

GEL Laboratory Certifications

WI - 999887790

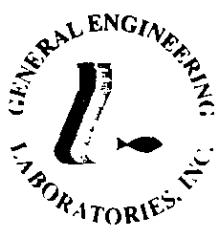
EPI Laboratory Certifications

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Karen Blakeney
Analytical Report Specialist

F





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Project Description: SUPSHIP-Portsmouth Detachment

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Report Date: May 31, 1996

Page 1 of 3

Sample ID	:	SPORT-0058-2
Lab ID	:	9605450-07
Matrix	:	TCLP
Date Collected	:	05/24/96
Date Received	:	05/24/96
Priority	:	Routine
Collector	:	Client

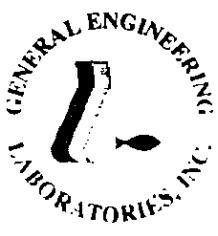
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0258	0.00780	0.500	mg/l	1.0	JSS	05/30/96	1504	85321	
Arsenic	U	-0.153	0.0421	0.500	mg/l	1.0					
Barium	J	0.255	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.00558	0.00330	0.100	mg/l	1.0					
Chromium	J	0.0235	0.00420	0.500	mg/l	1.0					
Lead	J	0.127	0.0364	0.500	mg/l	1.0					
Selenium	J	0.102	0.0841	0.300	mg/l	1.0					
Mercury	U	-0.0000800	0.000148	0.0200	mg/l	1.0	RMJ	05/30/96	1710	85352	2

The following prep procedures were performed:

ICP	DVW	05/29/96	1830	85321	3
Mercury	RMJ	05/30/96	1230	85352	4
TCLP Prep for Metals	JL	05/28/96	1510	85203	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 31, 1996

Page 2 of 3

Sample ID : SPORT-0058-2

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

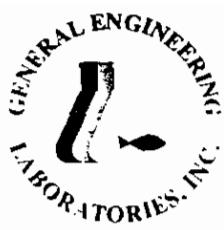
U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications

EPI Laboratory Certifications

AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			



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Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

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Sample ID : SPORT-0058-2

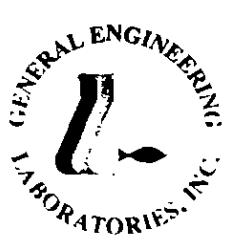
GEL Laboratory Certifications

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Sample ID : SPORT-0058-3
Lab ID : 9605450-03
Matrix : Soil
Date Collected : 05/24/96
Date Received : 05/24/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury	J	0.122	0.00231	0.200	mg/kg	1.0	RMJ	05/30/96	1346	85235	
Silver	U	103	247	990	ug/kg	2.0	NRM	05/31/96	1449	85273	1
Arsenic		3270	184	990	ug/kg	2.0					
Barium		38300	6.56	990	ug/kg	2.0					
Beryllium		610	1.13	495	ug/kg	2.0					
Cadmium	U	-148	9.60	495	ug/kg	2.0					
Chromium		26800	59.0	990	ug/kg	2.0					
Nickel		44300	79.9	990	ug/kg	2.0					
Lead		154000	112	495	ug/kg	2.0					
Antimony		1240	94.8	990	ug/kg	2.0					
Selenium	J	155	142	495	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		320	10.0	50.0	mg/kg	1.0	SDW	05/28/96	1000	85190	2
Extractable Organic Halides	J	6.02	4.59	14.2	mg/kg	1.0	SJ	05/31/96	1140	85340	3

The following prep procedures were performed:

Mercury RMJ 05/29/96 1800 85235 4
TRACE DVW 05/29/96 1840 85273 5

Comments:

A dilution was required for Metals due to matrix interference. As a result
the detection limits are elevated.





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Contact: Mr. Bill Hiers

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cc: NPWC00196

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Page 2 of 3

Sample ID : SPORT-0058-3

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050

Notes:

The qualifiers in this report are defined as follows:

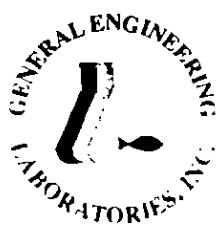
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U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235





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1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

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Page 3 of 3

Sample ID : SPORT-0058-3

GEL Laboratory Certifications

WI - 999887790

EPI Laboratory Certifications

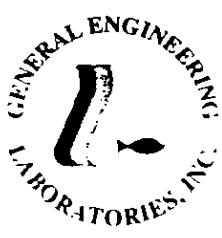
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standard operating procedures. Please direct
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A handwritten signature in black ink, appearing to read "Karen Blakeney".

Analytical Report Specialist





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Sample ID : SPORT-0058-3
Lab ID : 9605450-08
Matrix : TCLP
Date Collected : 05/24/96
Date Received : 05/24/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0228	0.00780	0.500	mg/l	1.0	JSS	05/30/96	1506	85321	
Arsenic	U	-0.128	0.0421	0.500	mg/l	1.0					
Barium	J	0.319	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.00556	0.00330	0.100	mg/l	1.0					
Chromium	J	0.0179	0.00420	0.500	mg/l	1.0					
Lead	J	0.0701	0.0364	0.500	mg/l	1.0					
Selenium	J	0.242	0.0841	0.300	mg/l	1.0					
Mercury	J	0.000700	0.000148	0.0200	mg/l	1.0	RMJ	05/30/96	1713	85352	2

The following prep procedures were performed:

ICP	DVW	05/29/96	1830	85321	3
Mercury	RMJ	05/30/96	1230	85352	4
TCLP Prep for Metals	JL	05/28/96	1510	85203	5

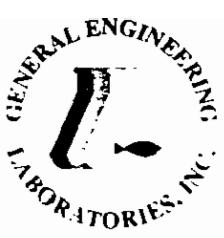
M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311



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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 31, 1996

Page 2 of 3

Sample ID : SPORT-0058-3

M = Method

Method-Description

Notes:

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J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

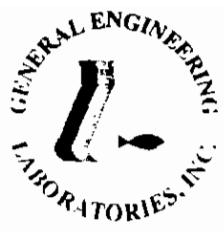
* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications

EPI Laboratory Certifications

AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
HI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			





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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: May 31, 1996

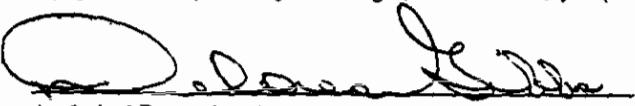
Page 3 of 3

Sample ID : SPORT-0058-3

GEL Laboratory Certifications

EPI Laboratory Certifications

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Analytical Report Specialist

N' DC 00196

KB/B

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 Charleston, South Car. 29414
 P.O. Box 30712
 Charleston, South Carolina 29417
 (803) 556-8171

Page 1 of 1 9605450

CHAIN OF CUSTODY RECORD

J.O. 645046 CEC99

Client Name/Facility Name SPORTENVDETCHASN				SAMPLE ANALYSIS REQUIRED (X) - use remarks area to specify specific compounds or methods												Remarks				
SAMPLE ID	DATE	TIME	WELL SQU COMP GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX /EOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required SEE REMARKS METALS - specify	Peptide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify TYPE	TPH	Use F or P in the boxes to indicate whether sample was filtered and/or preserved
-01 SPORT-0058-1	5-24-96	0711	XX	4			X			X								X	NBCE054S001400	.1.2
-02 SPORT-0058-2	5-24-96	0726	XX	4			X			X								X	NBCE054S001500	.1.2
-03 SPORT-0058-3	5-24-96	0758	XX	4			X			X								X	NBCE054S001600	.1.2
-04 SPORT-0058-4	5-24-96	0819	X5				X			X								X	NBCE054E001601 SEE REMARKS **	.2.4
-05 SPORT-0058-5	5-24-96	0945	X1							X									PRESERVATIVE BLANK	.3
METALS:																				
1) RCRA METALS																				
2) ANTIMONY - ICP																				
3) BERYLLIUM - ICP																				
4) NICKEL - ICP																				
5) TCLP - METALS																				
Relinquished by: Merry J. Brown, Jr.	Date: 5/24/96	Time: 1100	Received by: J. R. Hines, Jr.	Relinquished by: W. W. Hirsch	Date: 5/24/96	Time: 1137	Received by: Michael P.													
Relinquished by: Michael P.	Date: 5/24/96	Time: 1500	Received by: D. Russell	Date: 5/24/96	Time: 1500	Remarks: *** SPORT-0058-5 TEST FOR RCRA METALS ONLY.														

White = sample collector

Yellow = file

Pink = with report



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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

Page 1 of 3

Sample ID	:	SPORT0069-1
Lab ID	:	9606087-01
Matrix	:	Soil
Date Collected	:	06/05/96
Date Received	:	06/05/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury	J	0.130	0.00241	0.200	mg/kg	1.0	RMJ	06/11/96	1751	85619	
Silver	J	368	247	990	ug/kg	2.0	NRM	06/08/96	0056	85597	
Arsenic		12900	184	990	ug/kg	2.0					
Barium		87700	6.56	990	ug/kg	2.0					
Beryllium		968	1.13	495	ug/kg	2.0					
Cadmium		794	9.60	495	ug/kg	2.0					
Chromium		64900	59.0	990	ug/kg	2.0					
Nickel		67400	79.9	990	ug/kg	2.0					
Lead		349000	112	495	ug/kg	2.0					
Antimony		7730	94.8	990	ug/kg	2.0					
Selenium	U	-160	142	495	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		130	10.0	50.0	mg/kg	1.0	TSM	06/10/96	1000	85718	2
Extractable Organic Halides		30.5	4.77	14.8	mg/kg	1.0	SJ	06/07/96	1145	85631	3

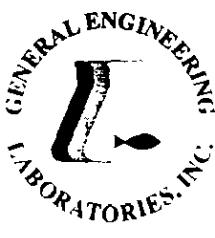
The following prep procedures were performed:

Mercury
TRACE

RMJ 06/11/96 1230 85619 4
FGD 06/06/96 1830 85597 5

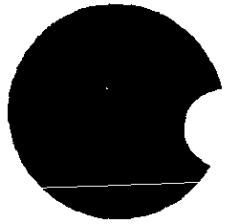
M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050





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Page 2 of 3

Sample ID : SPORT0069-1

M = Method

Method-Description

Notes:

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GEL Laboratory Certifications

AL - 41040
CA - 2089
DE - SC012
ME - SC012
NC - 233
RI - 135
TN - 02934
VA - 00151
WI - 999887790

EPI Laboratory Certifications

AZ - AZ0514
CT - PH-0169
FL - E87156/87294
MS - 10120
NY - 11501
SC - 10120
UT - E-251
WA - C223

AL - 41050
CA - I-1023/2056
FL - E87472/87458
NY - 11502
SC - 10582
UT - E-227
WA - C225
PA - 68-485

AZ - AZ0514
CT - PH-0175
MS - 29417
RI - 138
TN - 02934
VA - 00111
NJ - 79002
WV - 235





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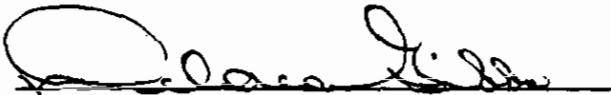
Page 3 of 3

Sample ID : SPORT0069-1

GEL Laboratory Certifications

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Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

Page 1 of 3

Sample ID : SPORT0069-1
Lab ID : 9606087-02
Matrix : TCLP
Date Collected : 06/05/96
Date Received : 06/05/96
Priority : Routine
Collector : Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0285	0.00780	0.500	mg/l	1.0	JSS	06/10/96	1437	85688	
Arsenic	U	-0.117	0.0421	0.500	mg/l	1.0					
Barium	J	0.315	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.00799	0.00330	0.100	mg/l	1.0					
Chromium	J	0.0281	0.00420	0.500	mg/l	1.0					
Lead	J	0.0464	0.0364	0.500	mg/l	1.0					
Selenium	U	0.0460	0.0841	0.300	mg/l	1.0					
Mercury	J	0.00172	0.000148	0.0200	mg/l	1.0	DVW	06/08/96	1004	85689	2

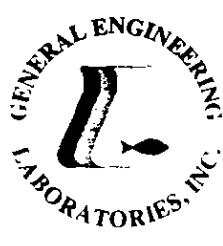
The following prep procedures were performed:

ICP FGD 06/10/96 1300 85688 3
Mercury RMJ 06/07/96 1700 85689 4
TCLP Prep for Metals JL 06/06/96 1440 85608 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311



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Page 2 of 3

Sample ID : SPORT0069-1

M = Method

Method-Description

Notes:

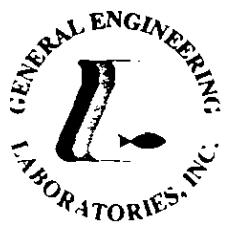
The qualifiers in this report are defined as follows:

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GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

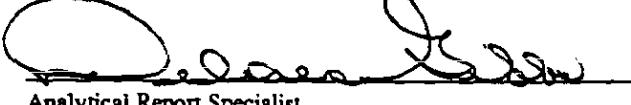
Page 3 of 3

Sample ID : SPORTC0069-1

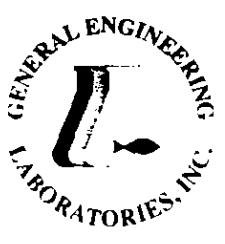
GEL Laboratory Certifications

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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

Page 1 of 3

Sample ID	:	SPORT0069-2
Lab ID	:	9606087-03
Matrix	:	Soil
Date Collected	:	06/05/96
Date Received	:	06/05/96
Priority	:	Routine
Collector	:	Client

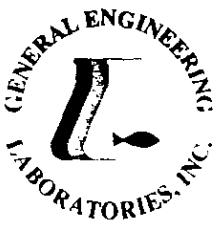
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury	J	0.159	0.00231	0.200	mg/kg	1.0	RMJ	06/11/96	1753	85619	
Silver	U	58.2	247	990	ug/kg	2.0	NRM	06/08/96	0101	85597	
Arsenic		2850	184	990	ug/kg	2.0					
Barium		37900	6.56	990	ug/kg	2.0					
Beryllium		586	1.13	495	ug/kg	2.0					
Cadmium	J	100	9.60	495	ug/kg	2.0					
Chromium		21300	59.0	990	ug/kg	2.0					
Nickel		31600	79.9	990	ug/kg	2.0					
Lead		104000	112	495	ug/kg	2.0					
Antimony	J	985	94.8	990	ug/kg	2.0					
Selenium	U	-163	142	495	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		120	10.0	50.0	mg/kg	1.0	TSM	06/10/96	1000	85718	2
Extractable Organic Halides	U	-5.78	4.84	15.0	mg/kg	1.0	SJ	06/07/96	1154	85631	3

The following prep procedures were performed:

Mercury	RMJ	06/11/96	1230	85619	4
TRACE	FGD	06/06/96	1830	85597	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050





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Project Description: SUPSHIP-Portsmouth Detachment

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Page 2 of 3

Sample ID : SPORT0069-2

M = Method

Method-Description

Notes:

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AL - 41040 AZ - AZ0514
CA - 2089 CT - PH-0169
DE - SC012 FL - E87156/87294
ME - SC012 MS - 10120
NC - 233 NY - 11501
RI - 135 SC - 10120
TN - 02934 UT - E-251
VA - 00151 WA - C223
WI - 999887790

EPI Laboratory Certifications

AL - 41050 AZ - AZ0514
CA - I-1023/2056 CT - PH-0175
FL - E87472/87458 MS - 29417
NY - 11502 RI - 138
SC - 10582 TN - 02934
UT - E-227 VA - 00111
WA - C225 NJ - 79002
PA - 68-485 WV - 235





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Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

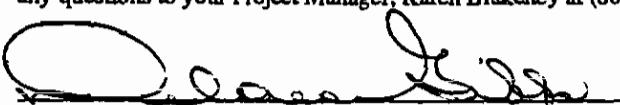
Page 3 of 3

Sample ID : SPORT0069-2

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cc: NPWC00196

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Page 1 of 3

Sample ID	:	SPORT0069-2
Lab ID	:	9606087-04
Matrix	:	TCLP
Date Collected	:	06/05/96
Date Received	:	06/05/96
Priority	:	Routine
Collector	:	Client

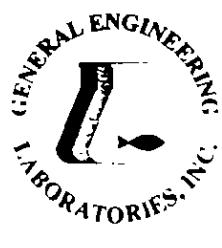
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0280	0.00780	0.500	mg/l	1.0	JSS	06/10/96	1458	85688	
Arsenic	U	-0.107	0.0421	0.500	mg/l	1.0					
Barium	J	0.296	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.00452	0.00330	0.100	mg/l	1.0					
Chromium	U	-0.000960	0.00420	0.500	mg/l	1.0					
Lead	U	0.00577	0.0364	0.500	mg/l	1.0					
Selenium	U	0.0629	0.0841	0.300	mg/l	1.0					
Mercury	J	0.000480	0.000148	0.0200	mg/l	1.0	DVW	06/08/96	1007	85689	2

The following prep procedures were performed:

ICP	FGD	06/10/96	1300	85688	3
Mercury	RMJ	06/07/96	1700	85689	4
TCLP Prep for Metals	JL	06/06/96	1440	85608	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

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Page 2 of 3

Sample ID : SPORT0069-2

M = Method **Method-Description**

Notes:

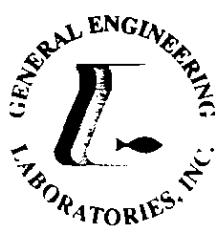
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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

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CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
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ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			



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Sample ID : SPORT0069-2

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EPI Laboratory Certifications


Analytical Report Specialist





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CERTIFICATE OF ANALYSIS

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106
Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

Page 1 of 3

Sample ID	:	SPORT0069-3
Lab ID	:	9606087-05
Matrix	:	Soil
Date Collected	:	06/05/96
Date Received	:	06/05/96
Priority	:	Routine
Collector	:	Client

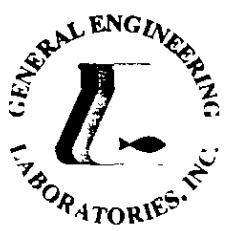
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury	J	0.136	0.00232	0.200	mg/kg	1.0	RMJ	06/11/96	1756	85619	
Silver	U	167	247	990	ug/kg	2.0	NRM	06/08/96	0106	85597	
Arsenic		2170	184	990	ug/kg	2.0					
Barium		41100	6.56	990	ug/kg	2.0					
Beryllium		599	1.13	495	ug/kg	2.0					
Cadmium		590	9.60	495	ug/kg	2.0					
Chromium		30900	59.0	990	ug/kg	2.0					
Nickel		79000	79.9	990	ug/kg	2.0					
Lead		1220000	112	495	ug/kg	2.0					
Antimony		4520	94.8	990	ug/kg	2.0					
Selenium	U	43.6	142	495	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		190	10.0	50.0	mg/kg	1.0	TSM	06/10/96	1000	85718	2
Extractable Organic Halides		31.3	4.69	14.5	mg/kg	1.0	SJ	06/07/96	1204	85631	3

The following prep procedures were performed:

Mercury RMJ 06/11/96 1230 85619 4
TRACE PGD 06/06/96 1830 85597 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

Page 2 of 3

Sample ID : SPORT0069-3

M = Method

Method-Description

Notes:

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J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications

AL - 41040
CA - 2089
DE - SC012
ME - SC012
NC - 233
RI - 135
TN - 02934
VA - 00151
WI - 999887790

EPI Laboratory Certifications

AZ - AZ0514
CT - PH-0169
FL - E87156/87294
MS - 10120
NY - 11501
SC - 10120
UT - E-251
WA - C223

AL - 41050
CA - I-1023/2056
FL - E87472/87458
NY - 11502
SC - 10582
UT - E-227
WA - C225
PA - 68-485

AZ - AZ0514
CT - PH-0175
MS - 29417
RI - 138
TN - 02934
VA - 00111
NJ - 79002
WV - 235



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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

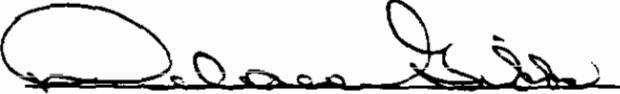
Page 3 of 3

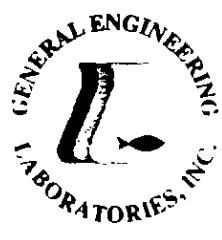
Sample ID : SPORT0069-3

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1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

Page 1 of 3

Sample ID	:	SPORT0069-3
Lab ID	:	9606087-06
Matrix	:	TCLP
Date Collected	:	06/05/96
Date Received	:	06/05/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0259	0.00780	0.500	mg/l	1.0	JSS	06/10/96	1500	85688	
Arsenic	U	-0.127	0.0421	0.500	mg/l	1.0					
Barium	J	0.445	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0158	0.00330	0.100	mg/l	1.0					
Chromium	U	0.00151	0.00420	0.500	mg/l	1.0					
Lead		12.4	0.0364	0.500	mg/l	1.0					
Selenium	U	-0.262	0.0841	0.300	mg/l	1.0					
Mercury	J	0.000610	0.000148	0.0200	mg/l	1.0	DVW	06/08/96	1009	85689	2

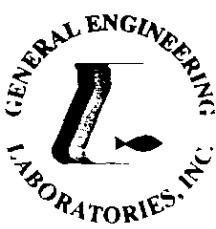
The following prep procedures were performed:

ICP
Mercury
TCLP Prep for Metals

FCG	06/10/96	1300	85688	3
RMJ	06/07/96	1700	85689	4
JL	06/06/96	1440	85608	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

Page 2 of 3

Sample ID : SPORT0069-3

M = Method Method-Description

Notes:

The qualifiers in this report are defined as follows:

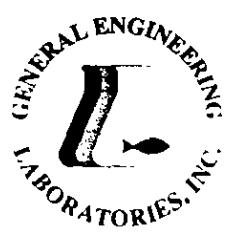
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

EL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			





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Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

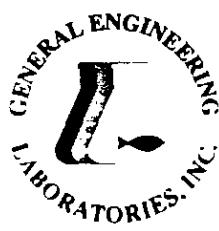
Page 3 of 3

Sample ID : SPORT0069-3

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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

Page 1 of 3

Sample ID	:	SPORT0069-4
Lab ID	:	9606087-07
Matrix	:	Soil
Date Collected	:	06/05/96
Date Received	:	06/05/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Mercury	J	0.190	0.00243	0.200	mg/kg	1.0	RMJ	06/11/96	1758	85619	
Silver	U	150	247	990	ug/kg	2.0	NRM	06/08/96	0111	85597	
Arsenic		3890	184	990	ug/kg	2.0					
Barium		95100	6.56	990	ug/kg	2.0					
Beryllium		574	1.13	495	ug/kg	2.0					
Cadmium		950	9.60	495	ug/kg	2.0					
Chromium		56800	59.0	990	ug/kg	2.0					
Nickel		49800	79.9	990	ug/kg	2.0					
Lead		1270000	112	495	ug/kg	2.0					
Antimony		4520	94.8	990	ug/kg	2.0					
Selenium	U	-68.1	142	495	ug/kg	2.0					
General Chemistry											
Total Rec. Petro. Hydrocarbons		120	10.0	50.0	mg/kg	1.0	TSM	06/10/96	1000	85718	2
Extractable Organic Halides		24.3	4.48	13.9	mg/kg	1.0	SJ	06/07/96	1213	85631	3

The following prep procedures were performed:

Mercury
TRACE

RMJ 06/11/96 1230 85619 4
FGD 06/06/96 1830 85597 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 9071
M 3	GEL
M 4	EPA 7471
M 5	EPA 3050



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

Page 2 of 3

Sample ID : SP0RT0069-4

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			



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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

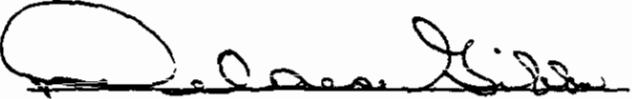
Page 3 of 3

Sample ID : SPORT0069-4

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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

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Page 1 of 3

Sample ID	:	SPORT0069-4
Lab ID	:	9606087-08
Matrix	:	TCLP
Date Collected	:	06/05/96
Date Received	:	06/05/96
Priority	:	Routine
Collector	:	Client

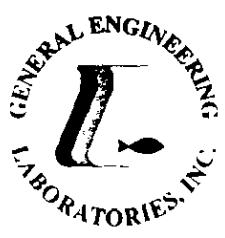
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0301	0.00780	0.500	mg/l	1.0	JSS	06/10/96	1503	85688	
Arsenic	U	-0.129	0.0421	0.500	mg/l	1.0					
Barium	J	0.410	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.00911	0.00330	0.100	mg/l	1.0					
Chromium	U	0.00268	0.00420	0.500	mg/l	1.0					
Lead		0.991	0.0364	0.500	mg/l	1.0					
Selenium	U	0.0781	0.0841	0.300	mg/l	1.0					
Mercury	J	0.00128	0.000148	0.0200	mg/l	1.0	DVW	06/08/96	1012	85689	2

The following prep procedures were performed:

ICP	FGD	06/10/96	1300	85688	3
Mercury	RMJ	06/07/96	1700	85689	4
TCLP Prep for Metals	JL	06/06/96	1440	85608	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

Page 2 of 3

Sample ID : SPORT0069-4

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: June 12, 1996

Page 3 of 3

Sample ID : SPORT0069-4

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Page 1 of 1 9606087

J.O. 645 46CE44

(803) 556-8171

Line No.	Site/Facility Name Collected by/Company	Sample ID	Date	Time	Well Soil Comp Grab	# of Containers	SAMPLE ANALYSIS REQUESTED					TESTS REQUESTED					Use For P in the boxes to specify specific compounds or methods Sample was filtered on	Remarks	Entered by
							pH, conductivity	TOC/DOC	TOX / EOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required SEE REMARKS METALS needed	Pesticide	Herbicide	Total Phenol	Acid Extractables			
01	SPORT-0069-1	6-5-96	0913	XX	4	X		X							X	NBCE054S001700	1.2		
02	SPORT-0069-2	6-5-96	0942	XX	4	X		X							X	NBCE054S001800	1.2		
03	SPORT-0069-3	6-5-96	1019	XX	4	X		X							X	NBCE054S001900	1.2		
04	SPORT-0069-4	6-5-96	1054	XX	4	X		X							X	NBCE054S002000	1.2		
05	SPORT-0069-5	6-5-96	1330	X	4	X		X							X	NBCE054P001103	3		
06	SPORT-0069-6	6-5-96	1330	X	4	X		X							X	NBCE054D001104	3		
																		METALS:	
																		1) RCRA METALS	
																		2) ANTIMONY - ICP	
																		3) BERYLLIUM - ICP	
																		4) NICKEL - ICP	
																		5) TCLP - METALS	
Relinquished by:		Date:	Time:	Received by:		Relinquished by:		Received by:		Date:	Time:	Remarks:		Relinquished by:					
Jerry Brownlee		6-5-96	1345	W.R. Hines, Jr.		W.R. Hines, Jr.		W.R. Hines, Jr.		6/5/96	1447	NO TCLP METALS REQUIRED ON SPORT 0069-5 OR SPORT-0069-6.		Michael Costa					
Relinquished by:		Date:	Time:	Received by lab by:		Date:		Time:		Remarks:									
Michael Costa		6/5/96	1515	Paul Kinsar		6/5/96		1515											

White = sample collector

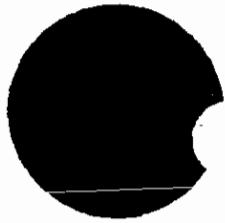
Yellow = file

Pink = with report



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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 29, 1996

Page 1 of 3

Sample ID	: SPOR0104-1
Lab ID	: 9607347-01
Matrix	: TCLP
Date Collected	: 07/18/96
Date Received	: 07/18/96
Priority	: Routine
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0310	0.00780	0.500	mg/l	1.0	JSS	07/25/96	1248	87677	
Arsenic	U	-0.124	0.0421	0.500	mg/l	1.0					
Barium	J	0.374	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0148	0.00330	0.100	mg/l	1.0					
Chromium	U	0.000890	0.00420	0.500	mg/l	1.0					
Lead		60.5	0.0364	0.500	mg/l	1.0					
Selenium	U	-0.167	0.0841	0.300	mg/l	1.0					
Mercury	U	-0.0000700	0.000148	0.0200	mg/l	1.0	RMJ	07/25/96	1722	87599	2

The following prep procedures were performed:

ICP	FGD	07/23/96	1330	87677	3
Mercury	DVW	07/24/96	1800	87599	4
TCLP Prep for Metals	JL	07/22/96	1410	87579	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

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Page 2 of 3

Sample ID : SPORT0104-1

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications

AL - 41040
CA - 2089
DE - SC012
ME - SC012
NC - 233
RI - 135
TN - 02934
VA - 00151
WI - 999887790

AZ - AZ0514
CT - PH-0169
FL - E87156/87294
MS - 10120
NY - 11501
SC - 10120
UT - E-251
WA - C223

EPI Laboratory Certifications

AL - 41050
CA - I-1023/2056
FL - E87472/87458
NY - 11502
SC - 10582
UT - E-227
WA - C225
PA - 68-485

AZ - AZ0514
CT - PH-0175
MS - 29417
RI - 138
TN - 02934
VA - 00111
NJ - 79002
WV - 235



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1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106
Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 29, 1996

Page 3 of 3

Sample ID : SPORTO104-1

GEL Laboratory Certifications**EPI Laboratory Certifications**

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Jennifer F. Green
Analytical Report Specialist



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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 29, 1996

Page 1 of 3

Sample ID	:	SPORT0104-2
Lab ID	:	9607347-02
Matrix	:	TCLP
Date Collected	:	07/18/96
Date Received	:	07/18/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0279	0.00780	0.500	mg/l	1.0	JSS	07/25/96	1250	87677	
Arsenic	U	-0.108	0.0421	0.500	mg/l	1.0					
Barium	J	0.245	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0996	0.00330	0.100	mg/l	1.0					
Chromium	J	0.00554	0.00420	0.500	mg/l	1.0					
Lead	J	0.287	0.0364	0.500	mg/l	1.0					
Selenium	U	-0.332	0.0841	0.300	mg/l	1.0					
Mercury	U	-0.000330	0.000148	0.0200	mg/l	1.0	RMJ	07/25/96	1724	87599	2

The following prep procedures were performed:

ICP FGD 07/23/96 1330 87677 3
Mercury DVW 07/24/96 1800 87599 4
TCLP Prep for Metals JL 07/22/96 1410 87579 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 29, 1996

Page 2 of 3

Sample ID : SPORT0104-2

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

EL Laboratory Certifications

AL - 41040
CA - 2089
DE - SC012
ME - SC012
NC - 233
RI - 135
TN - 02934
VA - 00151
WI - 999887790

EPI Laboratory Certifications

AZ - AZ0514
CT - PH-0169
FL - E87156/87294
MS - 10120
NY - 11501
SC - 10120
UT - E-251
WA - C225
WA - C223
PA - 68-485

AL - 41050
CA - I-1023/2056
FL - E87472/87458
NY - 11502
SC - 10582
UT - E-227
WA - C225
PA - 68-485

AZ - AZ0514
CT - PH-0175
MS - 29417
RI - 138
TN - 02934
VA - 00111
NJ - 79002
WV - 235





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 29, 1996

Page 3 of 3

Sample ID : SPORT0104-2

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EPI Laboratory Certifications

Jennifer F. Greene
Analytical Report Specialist





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1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106
Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

oc: NPWC00196

Report Date: July 29, 1996

Page 1 of 3

Sample ID : SPORT0104-3
Lab ID : 9607347-03
Matrix : TCLP
Date Collected : 07/18/96
Date Received : 07/18/96
Priority : Routine
Collector : Client

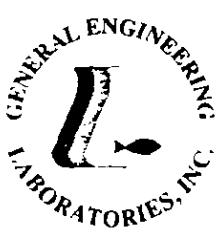
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0241	0.00780	0.500	mg/l	1.0	JSS	07/25/96	1254	87677	
Arsenic	U	-0.127	0.0421	0.500	mg/l	1.0					
Barium	J	0.383	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0134	0.00330	0.100	mg/l	1.0					
Chromium	U	0.00168	0.00420	0.500	mg/l	1.0					
Lead		0.598	0.0364	0.500	mg/l	1.0					
Selenium	J	0.266	0.0841	0.300	mg/l	1.0					
Mercury	J	0.000180	0.000148	0.0200	mg/l	1.0	RMJ	07/25/96	1727	87599	2

The following prep procedures were performed:

ICP FGD 07/23/96 1330 87677 3
Mercury DVW 07/24/96 1800 87599 4
TCLP Prep for Metals JL 07/22/96 1410 87579 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

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Page 2 of 3

Sample ID : SPORT0104-3

M = Method

Method-Description

Notes:

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J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 29, 1996

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Sample ID : SPORT0104-3

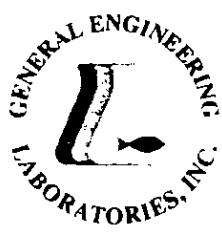
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Jennifer F. Greene
Analytical Report Specialist





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 29, 1996

Page 1 of 3

Sample ID	:	SPORT0104-4
Lab ID	:	9607347-04
Matrix	:	TCLP
Date Collected	:	07/18/96
Date Received	:	07/18/96
Priority	:	Routine
Collector	:	Client

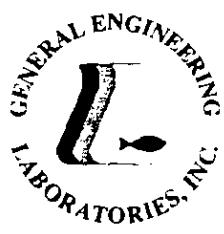
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.0266	0.00780	0.500	mg/l	1.0	JSS	07/25/96	1257	87677	1
Arsenic	U	-0.124	0.0421	0.500	mg/l	1.0					
Barium	J	0.311	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0134	0.00330	0.100	mg/l	1.0					
Chromium	U	-0.00721	0.00420	0.500	mg/l	1.0					
Lead	J	0.0694	0.0364	0.500	mg/l	1.0					
Selenium	J	0.238	0.0841	0.300	mg/l	1.0					
Mercury	U	-0.000580	0.000148	0.0200	mg/l	1.0	RMJ	07/25/96	1729	87599	2

The following prep procedures were performed:

ICP	FGD	07/23/96	1330	87677	3
Mercury	DVV	07/24/96	1800	87599	4
TCLP Prep for Metals	JL	07/22/96	1410	87579	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 29, 1996

Page 2 of 3

Sample ID : SPORT0104-4

M = Method

Method-Description

Notes:

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U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications		EPI Laboratory Certifications	
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CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
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ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			





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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 29, 1996

Page 3 of 3

Sample ID : SPORT0104-4

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EPI Laboratory Certifications

Jennifer F. Greene
Analytical Report Specialist



QC Summary Report

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Lab. Sample ID: 9607347%

Report Date: July 29, 1996

Page 1 of 2

Sample/Parameter	Type	Batch	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Analyst	Date	Time
Metals Analysis													
QC373454	BLANK	87677									JSS	07/25/96	1242
Arsenic					0.0108		mg/l						
Barium					-0.000660		mg/l						
Cadmium					0.00188		mg/l						
Chromium					-0.00209		mg/l						
Lead					-0.00325		mg/l						
Selenium					0.0109		mg/l						
Silver					0.000650		mg/l						
QC373455	BLANK	87677									JSS	07/25/96	1243
Arsenic					-0.0921		mg/l						
Barium					0.0871		mg/l						
Cadmium					0.00203		mg/l						
Chromium					0.00275		mg/l						
Lead					0.0120		mg/l						
Selenium					-0.0191		mg/l						
Silver					-0.0121		mg/l						
QC373456	LCS	87677									JSS	07/25/96	1223
Arsenic			5		4.50		mg/l		89.9	(79.0 - 110.)			
Barium			10		9.45		mg/l		94.5	(76.3 - 110.)			
Cadmium			1		0.874		mg/l		87.4	(78.2 - 111.)			
Chromium			5		4.64		mg/l		92.9	(79.0 - 112.)			
Lead			5		4.55		mg/l		91.0	(76.3 - 113.)			
Manganese			2		1.75		mg/l		87.5	(77.7 - 107.)			
Nickel			2		1.82		mg/l		91.0	(78.7 - 112.)			
Selenium			1		0.977		mg/l		97.7	(75.3 - 112.)			
Silver			0.5		0.439		mg/l		87.7	(76.4 - 106.)			
QC373457	LCS DUP	87677									JSS	07/25/96	1225
Arsenic			5		4.74		mg/l	5.24	94.7	(0.00 - 10.0)			
Barium			10		9.83		mg/l	3.95	98.3	(0.00 - 13.1)			
Cadmium			1		0.918		mg/l	4.85	91.8	(0.00 - 12.1)			
Chromium			5		4.86		mg/l	4.49	97.1	(0.00 - 11.4)			
Lead			5		4.78		mg/l	4.99	95.7	(0.00 - 11.9)			
Manganese			2		1.83		mg/l	4.53	91.5	(0.00 - 34.9)			
Nickel			2		1.91		mg/l	4.79	95.4	(0.00 - 13.4)			
Selenium			1		0.943		mg/l	3.59	94.3	(0.00 - 38.6)			
Silver			0.5		0.453		mg/l	3.28	90.6	(0.00 - 42.1)			
QC373459	9607347-01MS	87677									JSS	07/25/96	1.
Arsenic			5	-0.124		4.91	mg/l		98.1				
Barium			10	0.374		9.74	mg/l		93.7				

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(803) 556-8171 • Fax (803) 766-1178

QC Summary Report

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196 Lab. Sample ID: 9607347% Report Date: July 29, 1996 Page 2 of 2

Sample/Parameter	Type	Batch	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Analyst	Date	Time
Cadmium			1	0.0148		0.914	mg/l		90.0		JSS	07/25/96	1301
Chromium			5	0.000890		4.72	mg/l		94.3				
Lead			5	60.5		69.0	mg/l		n/a				
Selenium			1	-0.167		0.905	mg/l		90.5				
Silver			0.5	-0.0310		0.433	mg/l		86.5				
QC373460	9607347-01MSD	87677											
Arsenic			5	-0.124		4.84	mg/l	1.25	96.9		JSS	07/25/96	1303
Barium			10	0.374		9.52	mg/l	2.39	91.5				
Cadmium			1	0.0148		0.912	mg/l	0.259	89.7				
Chromium			5	0.000890		4.66	mg/l	1.11	93.3				
Lead			5	60.5		69.0	mg/l		n/a				
Selenium			1	-0.167		0.691	mg/l	26.9	69.1				
Silver			0.5	-0.0310		0.427	mg/l	1.24	85.5				
QC373109	BLANK	87599											
Mercury						-6.30E-05	mg/l				RMJ	07/25/96	1...
QC373110	BLANK	87599											
Mercury						-0.000660	mg/l				RMJ	07/25/96	1734
QC373119	LCS	87599											
Mercury				0.002		0.00206	mg/l		103	(77.7 - 123.)	RMJ	07/25/96	1751
QC373120	LCS DUP	87599											
Mercury				0.002		0.00207	mg/l	0.484	104	(0.00 - 23.3)	RMJ	07/25/96	1753
QC373113	9607347-01MS	87599											
Mercury				0.02	-7.00E-05	0.0209	mg/l		105		RMJ	07/25/96	1746
QC373114	9607347-01MSD	87599											
Mercury				0.02	-7.00E-05	0.0206	mg/l	1.44	103		RMJ	07/25/96	1748

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte < RL (Report Limit)

U indicates presence of analyte < DL (Detect Limit)

n/a indicates that spike recovery limits do not apply when
sample concentration exceeds spike conc by a factor of 4 or more



NPWC 00196

KBD
General Engineering Laboratories, Inc.
2040 Savage Road
Charleston, South Carolina 29414
P.O. Box 30712
Charleston, South Carolina 29417
(803) 556-8171

CHAIN OF CUSTODY RECORD

Page 1 of 1 9607347

Relinquished by:

Date: Time

Received by:

Renouished by:

Date: 7/18/93 Time: 1511

Received by:

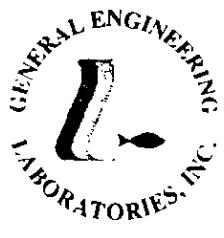
Retired by:

Date: _____ Time: _____

Received by lab by:

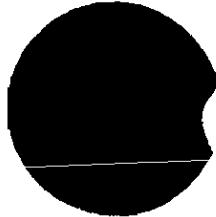
Date: 10/10/14 Time: 12:30

— 2 —



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Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 23, 1996

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Sample ID	: SP0RT 0106-1
Lab ID	: 9607370-01
Matrix	: Soil
Date Collected	: 07/19/96
Date Received	: 07/19/96
Priority	: Rush
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
General Chemistry											
Extractable Organic Halides		180		4.84	15.0 mg/kg	1.0	SJ	07/22/96	1555	87547	

M = Method	Method-Description
M 1	GEL

Notes:

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* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

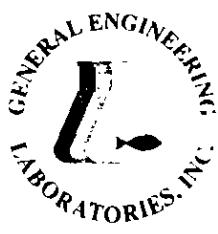
GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138



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cc: NPWC00196

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Sample ID : SPORT 0106-1

GEL Laboratory Certifications		EPI Laboratory Certifications	
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			

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Analytical Report Specialist





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Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 23, 1996

Page 1 of 3

Sample ID	:	SPORT 0106-2
Lab ID	:	9607370-02
Matrix	:	TCLP
Date Collected	:	07/19/96
Date Received	:	07/19/96
Priority	:	Rush
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>TCLP Volatile Compounds - 11 items</i>											
1,1-Dichloroethylene	U	0.00	10.0	70.0	ug/l	10.	JAC	07/22/96	1443	87590	1
1,2-Dichloroethane	U	0.00	10.0	50.0	ug/l	10.					
1,4-Dichlorobenzene	U	0.00	10.0	750	ug/l	10.					
2-Butanone	U	0.00	20.0	2000	ug/l	10.					
Benzene	U	0.00	10.0	50.0	ug/l	10.					
Carbon Tetrachloride	U	0.00	10.0	20.0	ug/l	10.					
Chlorobenzene	U	0.00	10.0	1000	ug/l	10.					
Chloroform	U	0.00	10.0	600	ug/l	10.					
Tetrachloroethylene	U	0.00	10.0	70.0	ug/l	10.					
Trichloroethylene	U	0.00	10.0	50.0	ug/l	10.					
Vinyl chloride	U	0.00	10.0	20.0	ug/l	10.					

The following prep procedures were performed:

TCLP Extraction - Volatiles

JL 07/21/96 1430 87543 2

Surrogate Recovery	Test	Percent %	Acceptable Limits
Bromofluorobenzene	TCLP VOA-8260	86.8	(80.0 - 128.)
Dibromofluoromethane	TCLP VOA-8260	88.0	(67.7 - 135.)
Toluene-d8	TCLP VOA-8260	91.6	(76.8 - 122.)

M = Method	Method-Description
M 1	EPA 8260



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1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106
Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 23, 1996

Page 2 of 3

Sample ID : SPORT 0106-2

M = Method

Method-Description

M 2 EPA 1311

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicate that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790			



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cc: NPWC00196

Report Date: July 23, 1996

Page 3 of 3

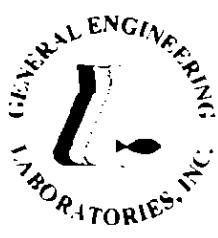
Sample ID : SPORT 0106-2

GEL Laboratory Certifications

EPI Laboratory Certifications

This data report has been prepared and reviewed
in accordance with General Engineering Laboratories
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Lorraine F. Greene
Analytical Report Specialist



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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 23, 1996

Page 1 of 3

Sample ID	:	SPORT 0106-3
Lab ID	:	9607370-03
Matrix	:	TCLP
Date Collected	:	07/19/96
Date Received	:	07/19/96
Priority	:	Rush
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Volatile Organics											
<i>TCLP Volatile Compounds - 11 items</i>											
1,1-Dichloroethylene	U	0.00	10.0	70.0	ug/l	10.	JAC	07/22/96	1539	87590	1
1,2-Dichloroethane	U	0.00	10.0	50.0	ug/l	10.					
1,4-Dichlorobenzene	U	0.00	10.0	750	ug/l	10.					
2-Butanone	U	0.00	20.0	2000	ug/l	10.					
Benzene	U	0.00	10.0	50.0	ug/l	10.					
Carbon Tetrachloride	U	0.00	10.0	20.0	ug/l	10.					
Chlorobenzene	U	0.00	10.0	1000	ug/l	10.					
Chloroform	U	0.00	10.0	600	ug/l	10.					
Tetrachloroethylene	U	2.20	10.0	70.0	ug/l	10.					
Trichloroethylene	U	0.00	10.0	50.0	ug/l	10.					
Vinyl chloride	U	0.00	10.0	20.0	ug/l	10.					

The following prep procedures were performed:

TCLP Extraction - Volatiles

JL 07/21/96 1430 87543 2

Surrogate Recovery	Test	Percent %	Acceptable Limits
Bromofluorobenzene	TCLP VOA-8260	84.4	(80.0 - 128.)
Dibromofluoromethane	TCLP VOA-8260	88.4	(67.7 - 135.)
Toluene-d ₈	TCLP VOA-8260	91.2	(76.8 - 122.)

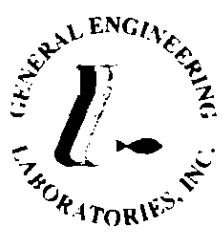
M = Method	Method-Description
M 1	EPA 8260



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cc: NPWC00196

Report Date: July 23, 1996

Page 2 of 3

Sample ID : SPORT 0106-3

M = Method Method-Description

M 2 EPA 1311

Notes:

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ME - SC012 MS - 10120
NC - 233 NY - 11501
RI - 135 SC - 10120
TN - 02934 UT - E-227
VA - 00151 WA - C223
WI - 999887790

EPI Laboratory Certifications

AL - 41050 AZ - AZ0514
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FL - E87472/87458 MS - 29417
NY - 11502 RI - 138
SC - 10582 TN - 02934
UT - E-227 VA - 00111
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Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: July 23, 1996

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Sample ID : SPORT 0106-3

GEL Laboratory Certifications

EPI Laboratory Certifications

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Jennifer F. Greene
Analytical Report Specialist



QC Summary Report

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Lab. Sample ID: 9607370%

Report Date: July 23, 1996

Page 1 of 3

Sample/Parameter	Type	Batch	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Analyst	Date	Time
Volatile Organics													
QC373068	BLANK	87590											
1,1-Dichloroethylene						0.00	ug/l					JAC	07/22/96 0919
Benzene						0.00	ug/l						
Chlorobenzene						0.00	ug/l						
Trichloroethylene						0.00	ug/l						
*Bromofluorobenzene			25			22.2	ug/l		88.8	(80.0 - 128.)			
*Dibromo fluromethane			25			24.9	ug/l		99.6	(67.7 - 135.)			
*Toluene-d8			25			23.7	ug/l		94.8	(76.8 - 122.)			
1,2-Dichloroethane						0.00	ug/l						
1,4-Dichlorobenzene						0.00	ug/l						
2-Butanone						0.00	ug/l						
Carbon Tetrachloride						0.00	ug/l						
Chloroform						0.00	ug/l						
Tetrachloroethylene						0.00	ug/l						
Vinyl chloride						0.00	ug/l						
QC373072	BLANK	87590											
1,1-Dichloroethylene						0.00	ug/l					JAC	07/22/96 1608
Benzene						0.00	ug/l						
Chlorobenzene						0.00	ug/l						
Trichloroethylene						0.00	ug/l						
*Bromofluorobenzene			25			1.90	ug/l						
*Dibromo fluromethane			25			21.9	ug/l		87.6	(80.0 - 128.)			
*Toluene-d8			25			21.9	ug/l		87.6	(67.7 - 135.)			
1,2-Dichloroethane						23.2	ug/l		92.8	(76.8 - 122.)			
1,4-Dichlorobenzene						0.00	ug/l						
2-Butanone						0.00	ug/l						
Carbon Tetrachloride						0.00	ug/l						
Chloroform						0.00	ug/l						
Tetrachloroethylene						2.00	ug/l						
Vinyl chloride						0.00	ug/l						
QC373071	9607370-02TS	87590											
1,1-Dichloroethylene			20	0.00		206	ug/l		103			JAC	07/22/96 1511
Benzene			20	0.00		190	ug/l		95.0				
Chlorobenzene			20	0.00		202	ug/l		101				
Trichloroethylene			20	0.00		179	ug/l		89.5				
*Bromofluorobenzene			25			22.4	ug/l		89.6	(80.0 - 128.)			
*Dibromo fluromethane			25			22.9	ug/l		91.6	(67.7 - 135.)			
*Toluene-d8			25			24.0	ug/l		96.0	(76.8 - 122.)			
1,2-Dichloroethane			20	0.00		203	ug/l		102				

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QC Summary Report

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Lab. Sample ID: 9607370%

Report Date: July 23, 1996

Page 2 of 3

Sample/Parameter	Type	Batch	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Analyst	Date	Time
1,4-Dichlorobenzene			20	0.00		203	ug/l		102		JAC	07/22/96	1511
2-Butanone			20	0.00		158	ug/l		79.0				
Carbon Tetrachloride			20	0.00		181	ug/l		90.5				
Chloroform			20	0.00		197	ug/l		98.5				
Tetrachloroethylene			20	0.00		166	ug/l		83.0				
Vinyl chloride			20	0.00		167	ug/l		83.5				

* represent a surrogate.

QC Summary Report

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Lab. Sample ID: 9607370%

Report Date: July 23, 1996

Page 3 of 3

Sample/Parameter	Type	Batch	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Analyst	Date	Time
General Chemistry													
QC372848	BLANK	87547					-6.06 mg/kg				SJ	07/22/96	1543
	Extractable Organic Halides												
QC372849	9607370-01DUP	87547				180	188 mg/kg	4.34			SJ	07/22/96	1628
	Extractable Organic Halides												
QC372851	LCS	87547				250	218 mg/kg		87.1	(60.5 - 124.)	SJ	07/22/96	1407
	Extractable Organic Halides												
QC372852	LCS DUP	87547				247	234 mg/kg	8.46	94.8	(-14.2 - 31.8)	SJ	07/22/96	1444
	Extractable Organic Halides												
QC372850	9607370-01MS	87547				241	180	464 mg/kg		118 (70.0 - 130.)	SJ	07/22/96	1645
	Extractable Organic Halides												

Notes:

The qualifiers in this report are defined as follows:

J indicates presence of analyte < RL (Report Limit)

U indicates presence of analyte < DL (Detect Limit)

n/a indicates that spike recovery limits do not apply when
sample concentration exceeds spike conc by a factor of 4 or more



N# 1000196

960737C RBB

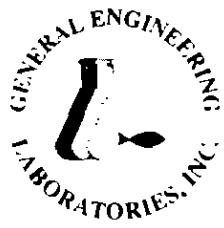
General Engineering tories, Inc.
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 Charleston, South Carolina 29414
 P.O. Box 30712
 Charleston, South Carolina 29417
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Page 1 of 1

CHAIN OF CUSTODY RECORD

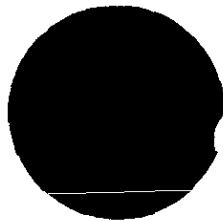
3 DAY TURNAROUND

Client Name/Facility Name SPORTENVDET CHASN				SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods TO/DOC TOX / EOX Chloride, Fluoride, Sulfide Nitrite/Nitrate VOC - Specific Method Required METALS - specify Pesticide Herbicide Total Phenol Acid Extractables B/N Extractables PCB's Cyanide Coliform - specify type TCLP - Volatiles																												
				← Use F or P in the boxes to indicate whether sample was filtered and/or preserved CCL 22366																												
				Remarks																												
-01	SAMPLE ID	DATE	TIME	WELL SOIL COMP GRAB	# OF CONTAINERS																											
-01	SPORT0106-1	7/19/96	0927	X X	2																											
-02	SPORT0106-2	7/19/96	1012	X X	1																											
-03	SPORT0106-3	7/19/96	1021	X X	1																											
Relinquished by: <u>Jerry Brown</u> Date: <u>7/19/96</u> Time: <u>1030</u>				Received by: <u>Jeff. M. ... f.</u>				Relinquished by: <u>W.R. Hiers, Jr.</u> Date: <u>7/19/96</u> Time: <u>1413</u>				Received by: <u>Michael Fob</u>																				
Relinquished by: <u>Michael Fob</u> Date: <u>7/19/96</u> Time: <u>1432</u>				Received by lab by: <u>Peggy Kenard</u>				Date: <u>7/19/96</u> Time: <u>1432</u>				Remarks:																				



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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: August 19, 1996

Page 1 of 3

Sample ID	:	SPORT0136-1
Lab ID	:	9608244-01
Matrix	:	TCLP
Date Collected	:	08/13/96
Date Received	:	08/13/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.00417	0.00780	0.500	mg/l	1.0	JSS	08/16/96	1425	88898	
Arsenic	U	-0.152	0.0421	0.500	mg/l	1.0					
Barium	J	0.328	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0151	0.00330	0.100	mg/l	1.0					
Chromium	U	0.000920	0.00420	0.500	mg/l	1.0					
Lead		25.4	0.0364	0.500	mg/l	1.0					
Selenium	J	0.201	0.0841	0.300	mg/l	1.0					
Mercury	U	-0.000720	0.000148	0.0200	mg/l	1.0	RMJ	08/16/96	1254	88890	2

The following prep procedures were performed:

ICP	FGD	08/15/96	1600	88898	3
Mercury	RMJ	08/15/96	1250	88890	4
TCLP Prep for Metals	JL	08/14/96	1535	88799	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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cc: NPWC00196

Report Date: August 19, 1996

Page 2 of 3

Sample ID : SPORT0136-1

M = Method

Method-Description

Notes:

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ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790	WV - 236		





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Sample ID : SPORT0136-1

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Karen Blakeney
Analytical Report Specialist





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Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: August 19, 1996

Page 1 of 3

Sample ID : SPORT0136-2
Lab ID : 9608244-02
Matrix : TCLP
Date Collected : 08/13/96
Date Received : 08/13/96
Priority : Routine
Collector : Client

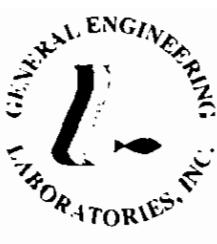
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.00100	0.00780	0.500	mg/l	1.0	JSS	08/16/96	1426	88898	
Arsenic	U	-0.128	0.0421	0.500	mg/l	1.0					
Barium	J	0.306	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0138	0.00330	0.100	mg/l	1.0					
Chromium	U	0.00306	0.00420	0.500	mg/l	1.0					
Lead		19.4	0.0364	0.500	mg/l	1.0					
Selenium	J	0.193	0.0841	0.300	mg/l	1.0					
Mercury	U	-0.000800	0.000148	0.0200	mg/l	1.0	RMJ	08/16/96	1257	88890	2

The following prep procedures were performed:

ICP FGD 08/15/96 1600 88898 3
Mercury RMJ 08/15/96 1250 88890 4
TCLP Prep for Metals JL 08/14/96 1535 88799 5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: August 19, 1996

Page 2 of 3

Sample ID : SPORT0136-2

M = Method

Method-Description

Notes:

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TN - 02934 UT - E-251
VA - 00151 WA - C223
WI - 999887790 WV - 236

EPI Laboratory Certifications

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FL - E87472/87458 MS - 29417
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cc: NPWC00196

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Page 3 of 3

Sample ID : SPORT0136-2

GEL Laboratory Certifications**EPI Laboratory Certifications**

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Karen Blakney
Analytical Report Specialist





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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: August 19, 1996

Page 1 of 3

Sample ID	:	SPORT0136-3
Lab ID	:	9608244-03
Matrix	:	TCLP
Date Collected	:	08/13/96
Date Received	:	08/13/96
Priority	:	Routine
Collector	:	Client

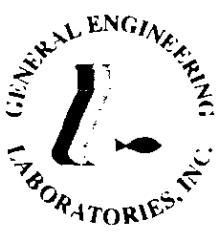
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	-0.000780	0.00780	0.500	mg/l	1.0	JSS	08/16/96	1428	88898	
Arsenic	U	-0.136	0.0421	0.500	mg/l	1.0					
Barium	J	0.331	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0139	0.00330	0.100	mg/l	1.0					
Chromium	U	-0.00191	0.00420	0.500	mg/l	1.0					
Lead		43.3	0.0364	0.500	mg/l	1.0					
Selenium	U	-0.137	0.0841	0.300	mg/l	1.0					
Mercury	J	0.00106	0.000148	0.0200	mg/l	1.0	RMJ	08/16/96	1259	88890	2

The following prep procedures were performed:

ICP	FGD	08/15/96	1600	88898	3
Mercury	RMJ	08/15/96	1250	88890	4
TCLP Prep for Metals	JL	08/14/96	1535	88799	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

CERTIFICATE OF ANALYSIS

Client: Supervisor of Ship Building & Conversion
SUPSHIP-Portsmouth Detachment-Env.
1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: August 19, 1996

Page 2 of 3

Sample ID : SPORT0136-3

M = Method

Method-Description

Notes:

The qualifiers in this report are defined as follows:

ND indicates that the analyte was not detected at a concentration greater than the detection limit.

J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).

U indicates that the analyte was not detected at a concentration greater than the detection limit.

* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

GEL Laboratory Certifications		EPI Laboratory Certifications	
AL - 41040	AZ - AZ0514	AL - 41050	AZ - AZ0514
CA - 2089	CT - PH-0169	CA - I-1023/2056	CT - PH-0175
DE - SC012	FL - E87156/87294	FL - E87472/87458	MS - 29417
ME - SC012	MS - 10120	NY - 11502	RI - 138
NC - 233	NY - 11501	SC - 10582	TN - 02934
RI - 135	SC - 10120	UT - E-227	VA - 00111
TN - 02934	UT - E-251	WA - C225	NJ - 79002
VA - 00151	WA - C223	PA - 68-485	WV - 235
WI - 999887790	WV - 236		





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Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: August 19, 1996

Page 3 of 3

Sample ID : SPORT0136-3

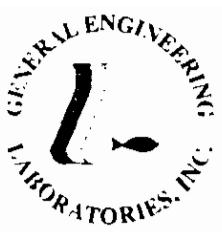
GEL Laboratory Certifications

EPI Laboratory Certifications

This data report has been prepared and reviewed
in accordance with General Engineering Laboratories
standard operating procedures. Please direct
any questions to your Project Manager, Karen Blakeney at (803) 769.7386.

Karen Blakeney
Analytical Report Specialist





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North Charleston, South Carolina 29405-2106
Contact: Mr. Bill Hiers
Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: August 19, 1996

Page 1 of 3

Sample ID	:	SPORT0136-4
Lab ID	:	9608244-04
Matrix	:	TCLP
Date Collected	:	08/13/96
Date Received	:	08/13/96
Priority	:	Routine
Collector	:	Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
Metals Analysis											
Silver	U	0.00178	0.00780	0.500	mg/l	1.0	JSS	08/16/96	1430	88898	
Arsenic	U	-0.159	0.0421	0.500	mg/l	1.0					
Barium	J	0.386	0.00220	10.0	mg/l	1.0					
Cadmium	J	0.0134	0.00330	0.100	mg/l	1.0					
Chromium	U	0.00333	0.00420	0.500	mg/l	1.0					
Lead		10.5	0.0364	0.500	mg/l	1.0					
Selenium	J	0.180	0.0841	0.300	mg/l	1.0					
Mercury	U	-0.00106	0.000148	0.0200	mg/l	1.0	RMJ	08/16/96	1301	88890	2

The following prep procedures were performed:

ICP	FGD	08/15/96	1600	88898	3
Mercury	RMJ	08/15/96	1250	88890	4
TCLP Prep for Metals	JL	08/14/96	1535	88799	5

M = Method	Method-Description
M 1	EPA 6010A
M 2	EPA 7471
M 3	EPA 3005
M 4	EPA 7470
M 5	EPA 1311





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North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: August 19, 1996

Page 2 of 3

Sample ID : SPORT0136-4

M = Method

Method-Description

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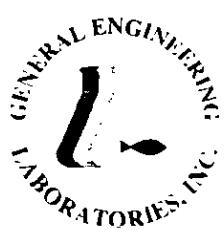
GEL Laboratory Certifications

AL - 41040 AZ - AZ0514
CA - 2089 CT - PH-0169
DE - SC012 FL - E87156/87294
ME - SC012 MS - 10120
NC - 233 NY - 11501
RI - 135 SC - 10120
TN - 02934 UT - E-251
VA - 00151 WA - C223
WI - 999887790 WV - 236

EPI Laboratory Certifications

AL - 41050 AZ - AZ0514
CA - I-1023/2056 CT - PH-0175
FL - E87472/87458 MS - 29417
NY - 11502 RI - 138
SC - 10582 TN - 02934
UT - E-227 VA - 00111
WA - C225 NJ - 79002
PA - 68-485 WV - 235





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1899 North Hobson Ave.
North Charleston, South Carolina 29405-2106

Contact: Mr. Bill Hiers

Project Description: SUPSHIP-Portsmouth Detachment

cc: NPWC00196

Report Date: August 19, 1996

Page 3 of 3

Sample ID : SPORT0136-4

GEL Laboratory Certifications

EPI Laboratory Certifications

This data report has been prepared and reviewed
in accordance with General Engineering Laboratories
standard operating procedures. Please direct
any questions to your Project Manager, Karen Blakeney at (803) 769-7386.

Karen Blakeney
Analytical Report Specialist



N.Y. JC 00196
4608244%

CHAIN OF CUSTODY RECORD

Page 1 of 1

General Engineering Stories, Inc.
2040 Savage Road
Charleston, South Carolina 29414
P.O. Box 30712
Charleston, South Carolina 29417
(803) 556-8171

APPENDIX C

WASTE

DOCUMENTATION

DNR
**MICHIGAN DEPARTMENT
OF NATURAL RESOURCES**

SP4400-10-0020

DO NOT WRITE IN THIS SPACE

ATT. DIS. REJ. PR.

Required under authority of Act 64, P.A.
1979, as amended and Act 138, P.A.
1989.

Failure to file is punishable under
section 289.548 MCL, or Section 10 of
Act 138, P.A. 1989.

Form Approved. OMB No. 2050-0039 Expires 9-30-98

**UNIFORM HAZARDOUS
WASTE MANIFEST**

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
------------------------------	-----------------------	----------------	-----------------------------------------------------------------

SD 01170122560151119

A. State Manifest Document Number:
MI 4056977

B. State Generator's ID:

C. State Transporter's ID: 4056977

D. Transporter's Phone: 403-744-6449

E. State Transporter's ID:

F. Transporter's Phone:

G. State Facility's ID:

H. Facility's Phone:

313-282-2258

3. Generator's Name: Rick Nelson
Caretaker Site Office P.O. Box 190010
Mt. Charleston., NV 89405

4. Generator's Phone: 803-743-9985

5. Transporter 1 Company Name
Robbie D. Wood

7. Transporter 2 Company Name

9. Designated Facility Name and Site Address

Chem-Mat Services

18550 Allen Rd

Wyandotte, MI 48192

6. US EPA ID Number

MI 4056977 1131819191

8. US EPA ID Number

MI 4056977 1131819191

10. US EPA ID Number

MI 4056977 1131819191

11. US DOT Description (including Proper Shipping Name, Hazard Class, and HM ID NUMBER).

No.	Containers	Total Quantity	Unit Wt/Vol	Waste No.
-----	------------	----------------	-------------	-----------

a. X 40. Hazardous Waste Solid, a.s.c. (Lead)
1. 345077, 76 (111) (8000)

Q, G, S	D 437254	P	D, G, Q, S	N/H
---------	----------	---	------------	-----

b. De-vegetated Material (Soil)

Q, O, I	D 01016176	P	O, 2, 9, L	N/H
---------	------------	---	------------	-----

c. De-vegetated Material (Soil) (geotextile)

Q, O, I	D 01026128	P	O, 2, 9, L	N/H
---------	------------	---	------------	-----

d. De-vegetated Material (Laser Print)

Q, O, I	D 01016181	P	O, 2, 9, L	N/H
---------	------------	---	------------	-----

Additional Description for Materials Listed Above:

DE-VEGETATED SOILS

LEAD CONTAMINATED SOIL

LEAD CONTAMINATED GEOTEXTILE

LEAD CONTAMINATED LASER PRINT

K. Handling Codes for Wastes Listed Above:

a/ /

b/ /

c/ /

d/ /

16. Special Handling Instructions and Additional Information: CSE Email: 403-686-7998

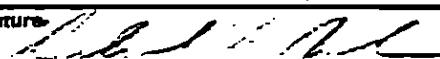
Send signed affidavit to CSE Environmental Inc. 3728 E 74th St, Philadelphia, PA 19125

THE GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above in proper shipping name and are classified, packed, marked, and labeled in accordance with respect to proper condition for transport by highway according to applicable international and national government regulations.

If I handle large quantity generators, if certain steps have to be taken to reduce the volume and toxicity of waste generated to the degree I have determined for the economic practicability and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the presence and future threat to human health and the environment; OR if I have a small quantity generator I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Date

Printed/Typed Name: **Rick Nelson**

Signature: 

Month	Day	Year
10	21	16

17. Transporter 1 Acknowledgement of Receipt of Materials:

Printed/Typed Name: **Affred B. McMillan**

Signature: 

Month	Day	Year
10	21	16

18. Transporter 2 Acknowledgement of Receipt of Materials:

Printed/Typed Name: **John M. Miller**

Signature: 

Month	Day	Year
10	21	16

19. Discrepancy Indication Space:

Collect & Done #1. Shipped to John CSE. TIC. 14/23/16

20. Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Month	Day	Year
10	21	16

Printed/Typed Name: **John M. Miller**

Signature: 

Month	Day	Year
10	21	16

Item 1

ORDER FOR SUPPLIES OR SERVICES

(Contractor must submit four copies of invoice)

From Approved
OMB No. 0704-0187
Expires Aug 31, 1992

Page 1 of 11

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0187), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send your completed form to the procurement official identified in Item 6.

1. CONTRACT/PURCHASE ORDER NO. N62467-96-M-4438				2. DELIVERY ORDER NO. _____				3. DATE OF ORDER 20 AUG 96				4. REQUISITION/PURCHASE REQUEST NO. N6450496RCP0002				5. CERTIFIED FOR NATIONAL DEFENSE UNDER DMS REG 1 DO-C9													
6. ISSUED BY OFFICER IN CHARGE OF CONSTRUCTION NAVAL WEAPONS STATION CHARLESTON 2316 RED BANK ROAD SUITE 100 GOOSE CREEK SC 29445-8601				CODE _____				7. ADMINISTERED BY (IF OTHER THAN 6) CODE SAME AS BLOCK 6 B. POWELL. CODE 542.1. (803) 764-7400				8. DELIVERY FOB <input type="checkbox"/> DEST OTHER (See Schedule if other)																	
9. CONTRACTOR OAKRIDGE (CHAMBERS) LANDFILL P. O. BOX 145 2183 HIGHWAY 78 DORCHESTER, SOUTH CAROLINA 29437				CODE _____ CEC #15851264A CIS #00022894				10. DELIVER TO FOB POINT BY (DATE) 20 SEPT 96				11. MARK IF BUSINESS IS SMALL SMALL DISADVANTAGED WOMEN-OWNED																	
14. SHIP TO _____				CODE _____				15. PAYMENT WILL BE MADE BY DFAS DAO-OAKLAND BLDG. 311-AW CODE FPV 7TH & MARITIME STS OAKLAND CA 94625-5000				16. DELIVERY <input checked="" type="checkbox"/> THIS DELIVERY ORDER IS ISSUED ON ANOTHER GOVERNMENT AGENCY OR IN ACCORDANCE WITH AN SUBJECT TO TERMS AND CONDITIONS OF ABOVE NUMBERED CONTRACT PURCHASE <input checked="" type="checkbox"/> REFERENCE YOUR WRITTEN QUOTE OF 8 AUGUST 1996 FURNISH THE FOLLOWING ON TERMS SPECIFIED HEREIN ACCEPTANCE <small>THE CONTRACTOR HEREBY ACCEPTS THE OFFER REPRESENTED BY THE NUMBERED PURCHASE ORDER AS IT MAY PREVIOUSLY HAVE BEEN OR IS NOW MODIFIED SUBJECT TO ALL OF THE TERMS AND CONDITIONS SET FORTH AND AGREES TO PERFORM THE SAME.</small>				MARK ALL PACKAGES AND PAPERS WITH CONTRACT OR ORDER NUMBER													
17. ACCOUNTING AND APPROPRIATION DATA/LOCAL USE AA1761804 8B5B 000 62678 0 068892 2D CP0002 N6450496CEC99Q F2276 SPORTENVDETCHASN N6450496RCP0002 - \$42,000.00				NAME OF CONTRACTOR IF THIS BOX IS MARKED. SUPPLIER MUST SIGN ACCEPTANCE AND RETURN THE FOLLOWING NUMBER OF COPIES:				SIGNATURE 1				TYPED NAME AND TITLE DATE SIGNED																	
18. ITEM NO. 0001		19. SCHEDULE OF SUPPLIES/SERVICE THE CONTRACTOR SHALL PROVIDE ALL SUPERVISION, LABOR, AND EQUIPMENT TO TRANSPORT SPENT ABRASIVE BLASTING GRIT FROM THE NAVAL BASE CDMPLEX TO AN APPROVED DISPOSAL SITE. THE GOVERNMENT WILL LOAD GRIT INTO DUMP TRAILERS PROVIDED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND PROPER DISPOSAL AS REQUIRED BY LOCAL, STATE, AND FEDERAL REGULATIONS. A MUTUAL WORK SCHEDULE SHALL BE AGREED UPON BY THE CONTRACTOR AND THE GOVERNMENT OFFICE PERFORMING THE LOADING PRIOR TO THE START OF WORK. DELAYS CAUSED BY THE GOVERNMENT'S FAILURE TO PROMPTLY LOAD MUST BE DOCUMENTS IN ORDER FOR THE CONTRACTOR TO BE CONSIDERED FOR A TIME EXTENSION IF NEEDED.						20. QUANTITY ORDERED/ACCEPTED 1500		21. UNIT TONS		22. UNIT PRICE \$28.00		23. AMOUNT \$42,000.00															
24. UNITED STATES OF AMERICA BY: J. D. THOMPSON CONTRACTING OFFICER/ORDERING OFFICER		<i>J. D. Thompson</i>						25. TOTAL \$42,000.00		26. DIFFERENCES \$42,000.00																			
27. SHIP NO. 0 PARTIAL 0 FINAL						28. D.O. VOUCHER NO. 1574.72						30. INITIALS 11 Loads 21. 40, 425.28																	
29. QUANTITY IN COLUMN 20 HAS BEEN <input checked="" type="checkbox"/> INSPECTED <input checked="" type="checkbox"/> RECEIVED <input checked="" type="checkbox"/> ACCEPTED, AND CONFORMS 8-29-96 J. D. Halladay						31. PAYMENT <input checked="" type="checkbox"/> COMPLETE 0 PARTIAL 0 FINAL						32. PAID BY 33. AMOUNT VERIFIED CORRECT FOR 34. CHECK NUMBER 35. BILL OF LADING NO.																	
30. DATE SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE						35. DATE SIGNATURE AND TITLE OF CERTIFYING OFFICER						36. RECEIVED AT 37. RECEIVED BY 38. DATE RECEIVED						39. TOTAL CONTAINERS 40. SIR ACCOUNT NUMBER						41. SIR VOUCHER NO. 42. SIR VOUCHER NO.					

A FAX FROM
NAVAL WEAPONS STATION
CONTRACT SURVEILLANCE
CHARLESTON OFFICE
COMMERCIAL # (803) 743-8888
FAX # (803) 743-8889

DATE: Sept 19, 1996 NUMBER OF PAGES SENT: 1

PLEASE DELIVER TO: Barbara Powell

ORGANIZATION/CODE: WPNSTA CODE 097

SENT BY: Gus Holladay

PLEASE LET THIS OFFICE KNOW IF YOU DID NOT RECEIVE THE TRANSMISSION
CORRECTLY.

MESSAGE:

CONTRACT N62467-96-m-4438, REMOVAL & DISPOSAL OF ABRASIVE BLASTING
GRIT.

The actual amount of grit disposed of was 1,443.76 tons. Please
issue a modification to reduce the contract by \$1,574.72 for a new
total of \$40, 425.28.

Thanks,

Gus

APPENDIX D

PHOTOGRAPHS

Photo D-1 Prior to excavation and viewed from above, towards the east, the dark shaded areas reflect the presence of spent abrasive blast residue. To the left of slab 1275, top center, excavation is in progress. Rows of stockpiled soil, covered with black poly, are at left.

Photo D-2 Viewed towards the east, across the southern half of the site, the dark shaded areas across the center of the photograph reflect the presence of spent abrasive blast residue prior to excavation. The yellow caution ribbon, in foreground, marks the western boundary of the site.

Photo D-3 Following excavation and viewed towards the south, across the middle of the site, the dark shaded areas of spent abrasive blast residue are no longer present. The color of the soil in the uncovered stockpile, lower left, reflects the excavation of spent abrasive blast residue.

Photo D-4 Viewed towards the south, across the middle of the site, excavation along the north side of slab 1275 is in progress. Covered stockpiles of soil are in foreground and two monitoring wells are present in front of slab 1275.



Photo D-1



Photo D-2



Photo D-3



Photo D-4

D-2